

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.



I.—THE HISTORY OF THE WORD 'MIND'.

THE word 'Mind' is a great word. It is invested with a highly important function in the English language; and the steps by which it has reached that position are interesting to trace. It has every title to be called a great word. For, in the first place, the word covers a large area of signification, and comprises a number of subordinate words which have their field within its province. All words of supraphysical signification, such as Sense, Emotion, Memory, Reflection, Discernment, Instinct, Reason, Intelligence—all these and many more do but express severally some particular aspect of that power which is comprehensively designated as Mind. When the signification of a word is a large and commanding one, when its associations are dignified, and when its use is so frequent that the word may be called an indispensable word, then we have the elements which constitute what we mean by a great word.

It adds to the impression of greatness, if such a word is partially shrouded with the obscurity of age; if it is not too perfectly transparent; if in fact we must ascend into some previous era to get an intelligent view of its present position. For example, Law is a great word and so is Science. Perhaps there is not much to choose between these two words in respect of area, dignity, indispensability. But one of these words has a haze of remoteness about it, while the other is as transparent as

a piece of new glass ; and I suppose all would agree that Law is a more impressive word than Science. All the conditions here indicated meet upon the word Mind ; it is comprehensive, dignified, indispensable, and it has moreover the impressiveness which a venerable mantle of antiquity confers.

And yet further, a special interest attaches to this word, from the circumstance that it is peculiar to the English language. It has existed indeed in the raw material of its physical form before our people were planted in this island : the group to which it belongs is common to many languages, but it has made for itself this high and permanent seat in the English language only. How recently the operation was completed, we shall see as we proceed. But we must begin far back, among the earliest records of our people.

It might perhaps be imagined that at the distant epoch here contemplated there were as yet in the languages of the barbarians no considerable words regarding the mental region, no anciently established and deep-rooted words to express the supra-physical, invisible, spiritual side of human nature. Such an idea would be a mistake, and we must seek to avert it at the very outset. Not only so, but we must endeavour to establish the full persuasion of a contrary opinion. For this purpose it may be convenient to employ independent testimony. Jacob Grimm, in his Preface to *Andreas und Elene*, p. xxxix., speaking of points of similarity between the Anglo-Saxon and the Scandinavian poetry, observes that the ancestral speech was rich in expressions for the spiritual side of human nature. He continues—

Hyge and myne *animus*, Icelandic hugr and munr bear a significant relationship to Huginn and Muninn the wise ravens of Odin through whom he gathers information, just as each man explores the world with his senses and reflection. Moreover, sefa and gehðu answer to the Icelandic sefi and geð as sense and thought ; mód and ferhð are rather *animus* in the practical signification of bravery and courage ; hrêðer and breóst express the seat of intelligence in the body ; willa is the resolution, *voluntas*.

These definitions are not of much value : they convey the last impressions of the writer rather than any firm usage. Such mental words were indeed numerous, but they were vague, and perhaps they were numerous because they were vague. I have quoted this passage more for the benefit of the author's name than for the solid value of the contents. It will at least show that there were plenty of mental words, and save me from the need of enumerating words which would have no associations for most readers.

There are, however, three words which deserve a particular notice, two of them for the great positions they have held and

continue to hold, and the third for its past celebrity and its historical relation to our present subject.

The first is the ancestral word which in Anglo-Saxon was *sawul*, and in Moesogothic *saiwala*. This word has been thought to be connected with *sea*, Anglo-Saxon *sē*, Moesogothic *saiws*, from a root signifying motion and life. However this may be, the word corresponded in signification to Greek *ψυχή* and Latin *anima*, and in the wake of these words it passed into the domain of Theology, where it is permanently established as German *Seele* and English *soul*. A pointed illustration of the correspondence between *anima* and *sawul* is afforded by a passage in the Anglo-Saxon Manual of Astronomy, where a caution is given against confusing the breath with the soul:—*Nis na seo orðung þe we ut blawað and inateoð ure sawul, ac is seo lyft þe we on lybbað: i.e., The breath which we exhale and inhale is not our soul, but is the air upon which we live.*

The second is the word for *spiritus*; Anglo-Saxon *gast*, German *Geist*, a word that is meagrely represented by the modern *ghost*, and maintains its ancient dignity only in that connexion where it is written with a capital initial. That these two words fill the same places in English and German theology, is due to intercommunication in Christian times, but the original fact that the words were common to the two languages is evidence of their ancestral antiquity.

The third is a word that may at first sight seem hardly worthy to be grouped with the other two. Its greatness is a thing of the past; it is indeed enumerated above in the quotation from Grimm among words of old poetic status, but in modern English it is rather lost in the crowd. And yet it is for our immediate purpose of more consequence than either of the former; it is as I may say the pedestal of the great word which I have undertaken to describe. The word of which I speak is Anglo-Saxon *mōd*, O.H. German *muot*, German *Muth*, English *mood*. Its origin is so obscure that we must renounce the attempt to trace it. In meaning it corresponded to the Latin *animus*, the impulse of thought and action: and in the mediæval poetry it means passion, humour, temper; just as in the *Children in the Wood*:

But he that was of milder mood,
Did slay the other there:—

In German, *Muth* bears various senses, but the stock idea is animal spirits, courage. Such appears also to have been in Anglo-Saxon the fundamental sense of the word, but by the earliest date at which we touch it, it had become the most general and comprehensive word for the inner man, and the most capable of being compared with and rendered by our present *Mind*. Indeed

this *môd* seemed to fill the whole area of the vaguely apprehended inner part of human nature; as against the physical and visible outer part. Among Hroðgar's abundant praises of Beowulf, the fullest is comprehended in a single line where *mægen*, main, physical force, is coupled with *môd*:

þu eart mægenes strang and on môde frôð.—*Beowulf*, 1845.
(Thou art strong in main, and wise in mood.)

And this phrase *on môde*, which here is quite presentatively employed, became so frequent, and so subtilised by the frequency of its application, that it attained the refinement of a pronominal symbol, thus: *Ic cwæð on môde*, I said within myself.

The book which best exhibits the higher pretensions of *môd* is Alfred's version of the *Philosophiæ Consolatio* of Boethius. This is not a mere translation, but a free adaptation of the text to the translator's own thoughts and experience. He plays many variations upon his original. Whereas in the Latin the dialogue is between Philosophy and Boethius, we find in the Saxon version an impersonation of the Mind, under the name of *þæt Môd*, and this character takes the part of Boethius. If on the one hand *þæt Môd* seems to be the faculty that is dejected and needs consolation, yet on the other hand it is a power that can exchange reasons with Philosophy. We have here a satisfactory evidence if not of the exact sense attached to the word, yet of the fact that it was the most preferable word to represent the whole inward nature of man, passive and active, moral and intellectual.

At the same time it is plain that the word was not universally accepted as a chief exponent of the inner man; when admitted into such a function it was generally combined with other words. Of itself and by itself it naturally gravitated to that first and most habitual sense, of the condition of the animal spirits. When it is to be used in the higher sense it must have the support of a determinative accompaniment. The testimony of Alfred's *Boethius* is indeed valuable, but we must remember that it is peculiar. This is no average book, but the study of one who separateth himself and intermeddleth with all wisdom. Expressions in the English of King Alfred have often a pitch of elevation which is given to them for the occasion, and sometimes if you meet them in the ordinary walks they hardly look like the same words.

There is a vast interval between such primitively simple words as *sawul*, *gast*, *môd*, and any sort of compound, even though of that earliest native type, the compounds with *ge-*, to which our word belongs. Its original form was GEMYND, and it was the substantive to an old verb *geman*, I remember; an old preterite

used as a present tense, exactly like and equivalent to the Latin *memini*, which is moreover a cognate. The preterit-present *geman* made its plural *gemunon*, they remember, and its past participle *gemunen*, and here we see the *u* that accounts for the *y* in *gemynd*.

Any word whose pedigree is so clear, though justly counted old in our time, must be considered as recent by comparison with such a prehistoric word as *mōd*. *Gemynd* is one of those comparatively recent formations which, like *gecynd* nature, *gescead* discretion, however old chronologically, have the marks of their making distinct and fresh upon them. And yet, with all this recency of stamp, it is found in our earliest writings, namely, in *Ulphilas*, in the form *gaminþi* remembrance.

It is missing in High German. The nearest relative to our word that is found in German is a word that springs, not from *geman* but from an ascendant of *geman*, from the verb of which *geman* is formally the preterite, namely, *minan* connected with *memini*, and *mens*, and Sanskrit *MAN* think, remember; and so again with the Pangothic *man* (homo) the thinking creature; and with all these we must associate the Greek *μένος* force, and the Homeric *μέμνη* I think of, yearn for.

In the Metrical English Psalter published by the Surtees Society, a book which represents Northern English of the thirteenth century, we find the well-known words of the eighth Psalm, "Quid est homo quod memor es ejus?" translated thus: "What is man, that thou minnes of him?" and this *minnes* looks like the original radical verb *minan*.

From this root-verb there sprang a word which has been famous in German literature. The High German *Minne* from the idea of Remembering became specialised to that of Love; it stood as the *vox propria* of romantic love in the poetry of chivalry from the twelfth to the fourteenth century, and the masters of this poetry were known as *Minne-Sänger*, singers of Love. In process of time however the word degenerated so much from its high poetic and religious aspect, that in the sixteenth century being no longer socially available it was allowed to drop and die out, only to be revived again in the middle of the eighteenth century as a quaint archaic gem of the mediæval poetry. Such is the history of the nearest relative to our word that is found in the High German branch.

This will perhaps be enough about the antecedents and connexions and earliest surroundings of our word:—we will now begin to follow its progress. At first it betokened remembering, and of this signification we may observe three gradations:—

(1) The form was *gemynd* (fem. and neut.), and its first meaning is simply Remembrance, Memory. It has no other

sense in the *Beowulf*, where it appears in two conspicuous passages. The hero dying enjoins that his warriors should rear on the site of his bale-fire a mound to be called *Beowulf's Barrow* :

se sceal to gemyndum minum leodum

heah hlifian on Hrones næsse (l. 2805).

(It shall tower aloft on Hronesness for a remembrance to my people.)

The other passage speaks of rich heirlooms worn for personal ornament, and such wealth is called "*maððum to gemyndum*," treasure for remembrancings, treasure memorial.

In an eleventh century memorandum of a Guild that flourished at Abbotsbury, one of the members bequeaths to the fraternity the Guildhall with the ground it stands on, "for a perpetual remembrance of himself and wife"—"him and his gebeddān to langsumum gemynde". *Cod. Dipl.* 942.

A more internal illustration of this sense occurs in *The Wanderer*, where it stands for the exercise of memory :—

þonne mǣga gemynd mōd geonðhweorfeð (l. 51).

(When memory of friends rushes through the mind).

In the fifty-first Psalm it stands for the faculty of Memory. "*Delictum meum coram me est semper*," is thus rendered :—"*Mine synna beoð symle beforan me, on minum gemynde*": where the latter words have been added for explanation, and they signify "in my memory".

(2) Immediately springing out of the former, is the sense of Monument, Memorial: a work of art to preserve and keep up memory.

In Ælfric's Homily for St. Stephen's Day, Dec. 26, there is repeated reference to the Gemynd of the saint :—"Geneosodan ða halgan cyrcan on þære þe wæs ðæs wuldorfullan Stephanes gemynd" = "They visited the holy church in which was the glorious Stephen's monument". It appears plainly from the context that the object meant was a reliquary shrine.

Again in the same author: we read how that Philip the tetrarch founded Cæsarea Philippi, calling the place Cæsarea after the Emperor, and Philippi "for his agenum gemynde" for a memorial of himself, Vol. I., p. 366. In such a connexion as this the word seems to abut on the sentiment of celebrity, fame, *gloire*: and so in another place of Ælfric, where he is commenting on the fact (strange to his hearers) that Herod's son should be called Herod, he continues—

Ac hit wæs gewunelic on ðam timan þæt rice menn sceopon heora bearnum naman be him sylfum, þæt hit wære geðuht þæs ðe mare gemynd ðæs fæder ðaða se sunu, his yrfenuma, wæs geciged þæs fæder naman. *I.e.*, but it was customary at the time that rich men should give their

children names after themselves, that the father's distinction might seem the greater, when the son, his heir, was called by his name. I. 478.

(3) A third and historically very important meaning is Commemoration. In the language of the Calendar the Commemoration of Martyrs is "martira gemynd". Ælfrie begins a Sermon for the day of the Inventio Crucis (May 3) with these words:—"Men ða leofestan, nu to dæg we wurðiað þære halgan Rode gemynd":—"Beloved people, now to-day we celebrate the Commemoration of the holy Rood". And a Commemoration Day was *gemynddæg*, just in the same sense in which we shall see a like expression come prominently forward by-and-by in the fifteenth century. A good place to see it with all explicitness, is in *Cod. Dipl.* 353. This sense had a great career, which will arrest our attention again. And it runs back into high antiquity. We have some meagre fragments of a Moesogothic Calendar, and the *gaminþi* appears there exactly as *gemynd* in the Saxon Calendar. Indeed *gaminþi* seems to have covered just the same area for the Goths of the fourth century as *gemynd* did for the Saxons of the eighth or tenth: it is used for memory, remembrance, in the translation of Ulphilas, as 2 Tim. i. 3, "I have of thee remembrance in my prayers night and day":—"Haba bi þuk gaminþi in bidom meinain naht jah daga".

The above three meanings make a group of almost inter-communicable senses; and when we find two out of three in the Moesogothic remains of the fourth century, we feel ourselves on sure ground in regarding these senses Memory, Monument, Commemoration, as the original significations of the compound *Gemynd*.

(4) We seem, however, to touch even in Anglo-Saxon literature upon some nearer approaches to the modern sense of the word. One might indeed point out places in which *gemynd* can be perfectly translated by the modern word Mind: thus in a place of the Exeter Book where Mr. Thorpe has so translated it:—

þæt is healc ræd
monna gehwilecum þe gemynd hafað (p. 27, ed. Thorpe).
(That is sublime counsel for every one that hath mind.)

Indeed, the general impression obtained by following this word down to the close of the Anglo-Saxon period is this: that it had arrived almost exactly (to compare small things with great) at the same position that, after battling with storms, and being kept for centuries out of port, it reached again in Shakespeare. In Shakespeare's time, as we shall see below, the word was capable of standing for anything emotional, mental or spiritual, but it did not in a distinct manner represent *Mens* as it does now. So likewise, in the close of the Anglo-Saxon

period, we find *gemynd* able to stand for Mind in a general Shakespearian way, but not at all sharply responsive to the sense of *Mens*. On the contrary, the stock word to translate *Mens* with down to Ælfric's time was still *môd*; this was the Anglo-Saxon word that without context stood over against *Mens*; as may be seen in Mr. Zupitza's edition of Ælfric's Grammar, p. 14.

From the foregoing it appears that Mind took its departure from a beginning in which it meant Remembrance. But if we look in the dictionaries under Mind we shall see that the catalogue of significations generally ends with this sense, instead of beginning with it. In the sematology of the word Dr. Johnson has been followed with small and unimportant variations. His definitions were arranged as follows: (1) The intelligent power; (2) Liking, choice, inclination, propension, affection; (3) Thoughts, sentiments; (4) Opinion; (5) Memory, remembrancy. Here we see that the fundamental meanings are ranged last, and the latest usage is placed first, so that the historical order of development is as nearly as possible reversed. But to return.

Our best evidence of the progress of the word along its future path arises from its combinations with elder words, and especially with the word *môd*. It has already been observed that this word held in early Saxon times the place most nearly analogous to that of Mind with us now. This power has so completely departed from the word that it may be hard for the reader to accept the statement. All our present associations of this word are with ideas of humour, temper, high or low spirits. And this was the old foundation of the word: the sense of Mind grew on this as an apex from a base; the elevation has decayed, and the basement remains. In Anglo-Saxon a man might be *môdes bliðe* blithe of mood, or *môdes geomor* sorrowful of mood: he might be *môdes fâs* prompt of mood, i.e., courageous, ready for action—all these of the ground meaning; but then farther he might also be *modes gleaw* ingenious, skilful, prudent of mood; and the qualities of *môd* thus connoted were summed up in the compound *môd-craft* faculty of mind.

Where the intellectual aspect of *môd* is intended, we find some more distinctly mental word assigned to it as a companion. Thus *môdes beaht* Môds counsel; or *môdes gemynd* the Gemynd of the Môd; as where in Cædmon it is said of Tubal Cain that

He through cunning force	smith-crafty was
{ and þurh môdes gemynd	manna ærest
{ and through môd's gemynd	first of all men

invented the ploughshare. Or, the two are coupled, as where the same poet describes the patriarch drunk with wine:—

On ferhðeofan fæste genearwod
môðe and gemyndé :—

marvellously like Virgil's coupling of *mens* with *animus* in his description of the wild enthusiasm of the Sibyl :—

Magnam cui mentem animamque
Delius inspirat vates, aperitque futura.

But this more precise use of *môð* by the addition of a determinative is seen most effectively in the compounds which were made with *môð* for a base. They naturally fall into two groups, those which concern Feeling and those which concern Thought. Examples of the former: *môð-bisgung* worry: *môð-cearu* anxiety: *môð-cvânig* querulous: *môð-earfoð* distress: *môð-gebyldig* enduring: *môð-geomor* sorrowful: *môð-glæd* joyous: *môð-hete* hatred: *môð-hwat* impetuous: *môð-lufe* love: *môð-rôf* haughty: *môð-sefa* disposition, temper: *môð-seoc* morbid: *môð-sorg* sorrow: *môð-swið* resolute: *môð-bracu* fortitude: *môð-þrea* horror: *môð-þryðo* stateliness: *môð-wlanc* insolent. Examples of the latter: *môð-cræft* ingenuity: *môð-cræftig* clever: *môð-gehygd* meditation: *môð-gemynd* mental activity, thought: *môð-geþonc* the same: *môð-geþoht* the same: *môð-gleaw* sagacious: *môð-hord* the hoard of the Môð, the thoughts: *môð-snottor* discerning: *môð-wén* opinion, literally, mood-weening.

It was hardly possible without a muster of examples to convey an impression of the great province of *môð*, or to estimate the nutriment it could supply to words in its partnership. Out of these we will select three as most to our purpose :—namely *môðgemynd*, *môðgeþonc*, *môðgeþoht*. These were powerful compounds, expressive of a vague sense of greatness in the powers of human thought. It was out of this group that Mind rose to its present office, and we can almost recognise in each one of these words a capable equivalent of Mind, though they were not as yet by any means strictly attached to that signification. In the *Elene*, when the advice of learned men is required, they are described as *þa þe leorningcraeft þurh môðgemynd mæste hefden* those who science of learning through mental ability most had, i.e., those who by mind had most learning. But as to the expression of pure intelligence, perhaps *môðgeþonc* and *môðgeþoht* were more prominent than *môðgemynd*. When Cædmon describes the surpassing excellence of mind with which God had endowed the Archangel, he speaks thus :—*ænne hæfde he swa swiðne geworhtne, swa mihtigne on his môðgeþohte*, one had he made so strong, so mighty in his mind. For an example of *môðgeþonc*, I will quote the closing lines of Alfred's Boethian *Metres* :—

Man āna gæð metodes gesceafta
 mid his andwlitan up on gerihte :
 mid þ̅f̅ is getacnod þæt his treōwa sceal
 and his mōðgeþone mā up þonne niðer
 habban to heofenum ; þ̅f̅ læs he his hige wende
 niðer swa þær nyten. Nis þæt gedafenlie
 þæt se mōðsefa monna æniges
 niðerheald wese and þæt neb upweard.

(Man only goeth of the Maker's creatures,
 with his countenance (lifted) upright :
 by that is betokened that he his trust shall
 and the thought of his mind more up than beneath
 hold towards heaven ; lest he his heart turn
 netherwards like the neat. It is not suitable
 that the mood and affection of any of men
 down-lurking should be and the look upward.)

As the word *geþoht* will claim attention again by and by, it will be well to have illustrated its importance and the fulness of its competition with *gemynd* for the function of expressing intelligence. In Exodus xxiii. 8, where our Bible says "The gift blindeth the wise," and where the Vulgate has "munera excæcant prudentes"—this text being embodied in Alfred's Laws, or the Prologue to them, takes this interesting form : "Forþon hie ablendap ful oft wisra monna geþoht," which compels us to use Mind in the translation, as Mr. Thorpe has done : "for they blind full oft the minds of wise men".

The competition of *Geþoht* and *Gemynd* will occupy us again presently, when we come to speak of Chaucer : but first there is another word that claims our attention.

The assertion may perhaps be ventured, that seldom if ever does a word of the first importance reach its station by a simple and unchequered career. The symbol-verb *to be* affords a ready example of this remark. The plurality of roots which in most languages have a share in this verb and give it a patched appearance, are a lasting evidence of the fact that several words were in the running for an office so vital for all the higher operations of language. In like manner the word Mind had many rivals before it reached the goal. The demolition of the Saxon standard of the language, and the formation of new centres of literary English, had for a long time the effect of obscuring whatever progress *Gemynd* had formerly made. In the twelfth and thirteenth centuries the word that mostly stood in its place was *wit*. The Saxon form *Gewit* had meant sense, perception, consciousness : in *Solomon and Saturn* (l. 23) it stands for that which distinguishes man from beast : as in *feoh butan gewitte*, cattle without reason : and the five senses were "the five wits" through Saxon and mediæval times, down to Shakespeare, who has it thus : "four of his five wits went halting off," *Much Ado* I. 1.

But in the *Ormulum* which is our best source for the thirteenth century, this word appears to hold nearly the place which we now assign to Mind. The promise of the tempter to the first man is thus conceived: "And tu shallt habbenn witt and skill in alle kinne thinge," i.e., "Thou shalt have knowledge and ability in all kinds of things". Adam was tempted to desire greater mental powers than God had given him, and the faculties of which he desired more are enumerated as "innsiht and witt and shæd and skill," that is to say, "insight and intelligence and discernment and ability". Plans conceived in the mind are said to be in the "herte and wit": a man who intends to make a chest has the chest in his "herte and wit" before the tangible object is produced: all creation is said to have been previously in the "herte and wit" of God: the Divine Logos is represented as the "wit and word" of God. In such cases it seems plain that a word which commonly stands for sense, understanding, discretion, prudence, is raised as near as could be to the office now filled by Mind.

In all the twenty thousand lines of the *Ormulum* the word *minde* appears but on one occasion; if we may so completely trust the Glossary of Dr. White, lately revised by Mr. Holt, as to reason from it negatively. And I believe we may. On this single occasion the word *witt* accompanies *mind*, and it becomes a nice and critical question what value we are to assign to each. The context treats of the nature of the human soul, and its affinity with the nature of God. A quotation may be useful:

And sawle is ee wurthlike shridd
 Thurrh Godd inn hire kinde,
 With undæthshildignesne, and ee
 With witt and wille and minde;
 And for thi nemneth Drihhtin Godd
 The sawle his onnficnesse,
 Forr thatt tey bathe, sawle and Godd,
 Sinndenn withutenn ende,
 And hafenn minde and wille and witte.

(And the soul is eke worthily endowed by God in her nature, with immortality, and eke with wit and will and mind; and therefore the Lord God nameth the soul his likeness, for that they both, the soul and God, are without end, and have mind and will and wit.)

This looked at first like an ascending series, but as the ladder is alternately planted on either end, Which (we may ask) is the head of the ladder? The moral world is in the middle, having on its one side the stores of experience, and on its other side the creative originating intelligence. Which of these two is *minde* meant for? In the light of the past we should say *minde* must be the stores of understanding and memory, but in the light of the future we should assign this

place to *witt*, and see in the passage a forecast of the modern status of *Mind*. The rarity of the word *Mind* in Wiclif, and its numerical relation to *wit* is remarkably the same as in the *Ormulum*; but there is this difference, that in Wiclif there is no ambiguity about the direction in which the word points.

In an inquiry like the present, the evidence of carefully made translations from standard writings is of the highest value: and therefore it will be worth while to see the Wicliffite usage at full length. Indeed I am bound, in the interest of the argument, to quote the passages at large, because the object here is, not merely to show that *mynde* when used by Wiclif was used in a narrow sense, but much more to show, how numerous are the occasions on which the word is *not* used, where now it would be used, and where it was used in the Bible diction of the sixteenth century.

The Wicliffite versions appeared between 1380 and 1390, and they were made from the Latin. Accordingly I group the passages first according to the Latin word, and then subdivide them according to any diversity in the original. The English of 1611 is joined with the Latin and Greek. (The meaning of the asterisks will be explained later.)

Memoria (μνεία), *Mention, Remembrance.*

Rom. i. 10: Y make mynde of zou euere in my preieris.

Eph. i. 16: Makynge mynde of zou in my preieris.

Phil. i. 3: I do thankyngis to my God in al mynd of zou.

1 *The.* iii. 6: And that ze han good mynde of vs.

Memoria (μνημόσυνον), *Memorial.*

Mk. xiv. 9: Schal be told in to mynde of hir.

Acts x. 4: Thin almesdedis han stied up in to mynde.

Sensus (νοῦς), *Mind.*

Lk. xxiv. 45: Thanne he openyde to hem wit.

Rom. i. 28: Bitook hem in to a reprouable wit*.

xi. 34: Who knew the wit* of the Lord.

xii. 2: But be ze reformed in newnesse of zoure wit.

xiv. 5: Ech man encrees in his wit.

1 *Cor.* i. 10: Be ze perfit in the same wit*.

ii. 16: Who knew the wit* of the Lord. . . . we han the wit* of Crist.

xiv. 19: Y wole speke yue wordis in my wit*.

Eph. iv. 17: In the vanyte of her wit*.

Col. ii. 18: Bolnyd with wit* of his fleisch.

2 *The.* ii. 2: That ze be not mouyd soone fro zoure witt*.

Rev. xvii. 9: And this is the witt*, who that hath wisdom.

Sensus (δύναμις), *Mind.*

Col. i. 21: Enemys bi wit*.

Mens (νοῦς), *Mind.*

Rom. vii. 23: The lawe of my soule*.

— 25: Bi the soule* serue to the lawe of God.

Eph. iv. 23 : In the spirit of zoure soule *.

1 Tim. vi. 5 : Corrupt in soule *.

2 Tim. iii. 8 : Corrupt in undirstonding *.

Tit. i. 15 : Soule * and conscience.

Intelligentiae (νοῦματα), *Minds*.

Phil. iv. 7 : Youre hertis and vndurstonding *.

So far I have been contented with quoting from Professor Skeat's very handy little reprint of the second or revised Wicliffite version of the New Testament, as being the less archaic of the two, and every way sufficient for our inquiry. But here we come on a place, that deserves to be exhibited in both the versions, after the splendid quarto volumes of Forshall and Madden, in parallel columns :—

Mens (νοῦς), *Understanding* : 1 Cor. xiv. 14, 15.

Forwhi if I preye in tunge, my spirit preieth ; forsoth my mynde, *or resoun*, is without fruyt. Therefore what thing is ? I schal preie in spirit, I schal preie and in mynde, *or resoun* ; I schal seie salm in spirit, I schal seie salm in mynde, *or resoun*.

For if y preye in tunge, my spirit preieth ; myn vndurstondyng is with outen fruyt. What thanne ? y schal preye in spirit, y schal preye in mynde ; y schal seie salm in spirit, y schal seie salm also in mynde.

This passage is very much to our purpose : because it exhibits our word in or near to the sense we are specially interested in ; because here we have *mynde* for *mens* (νοῦς) ; and above all, because the sense of novelty and of transition is well marked in the elder version, by the explanatory accompaniment "or reason".

The only other place in which I have found *mynde* in these versions with an approach to the modern sense is in *Matt.* xxii. 37 (with the synoptic parallels) :—"Thou schalt loue thi Lord God, of al thin herte, and in al thi soule, and in al thi mynde," where the word represents *mens* (διάνοια), and where it is to be noted, that there are in the N.T. at least five other places with the same Latin and the same Greek word, where *mynde* has not been used, but either *soul* or *thought*. This passage is the more valuable because *heart* and *soul* hedge up the sense of *mynde*, and with the help of *mens*, secure the meaning against doubt. The great effect of our examination of Wiclif is to leave the impression that the word *Mind* had made little way towards filling the place of the Latin *mens*. An examination of Chaucer and Gower tends the same way. With them the prevalent sense of *mind* is still Memory :—

And as the bokes maken minde.

Gower, *Conf. Amantis*, vii.

A tale, which cometh now to minde.

Id. p. 206 ed. Pauli.

Almighty God, that saveth all mankynde,
Have on Constaunce and on hir child som mynde !
Chaucer, *C.T.* 5328.

In olde Romayn gestes men may fynd
Maurices lyf, I bere it nought in mynde.
C.T. 5546.

We even find it coupled bilingually with Memory, as,
And westward in the mynde and memory
Of Mars, he hath imaked such another.
C.T. 1908.

In one place it signifies memory as part of consciousness :
She said she was so mased in the see,
That she forgate hir mynde, by hire trouth.
C.T. 4947.

And yet Chaucer also displays the word in a manner which comes indefinitely near to its chief modern use, when he employs it as the counterpart of the body, thus :—

O foule lust, O luxurie, lo their ende !
Nought oonly that thou feyntest mannes mynde,
But verrayly thou wolt his body schende.
C.T. 5345.

And neigh the castle swiche ther dwelten three :
That on of hem was blind, and might not see,
But it were with thilke eyen of his mynde,
With which men mowen see whan they been blind.
C.T. 4972.

There seems so little to distinguish between this and the modern use of the word, that it becomes all the more strange why Chaucer avoided the word when he was rendering the Latin *mens* or the Italian *mente*. It has been observed by Mr. Bernhard Ten Brink, that when Chaucer had these words before him, he habitually rendered them by the word Thought. The line in the *House of Fame* II. 16 :—

O Thought that wrote al that I mette

is after Dante *Inferno* II. 8 :

O mente che scrvesti ciò ch' io vidi.

In Boethius IV. Prose 1, the Latin "*pennas etiam affigam tuæ menti*" is rendered by Chaucer, "I shal ficche fetheres in thi thought": and a little further on, "*quas cum sibi velox mens induit*," is rendered "when the swift thought hath clothed it self in tho fetheres". It is curious to observe that in both these places the Old High German version uses *muot* (i.e., our *mōd*):—"Ih kistello ioh ana dinemo muote die fettacha . . . unde so daz snella muot sie ana getuot."

In these examples the two words Mind and Thought appear as rivals for a certain prominence, and the latter seems to have

temporary possession of that place in which the former is now indisputably established. Perhaps one might say of Mind, as the word is now used, that it is the thing in which Thought resides, the subject of thought, the power which thinks. We cannot represent to ourselves the acts of thinking or of feeling, or of resolving, without some place to lodge them in, and that place is the Mind. Mind is coextensive with the capacity for experience, coextensive with consciousness, even with the faculty of sensation; but it has a special relation to Ideas, and when the word is used acutely, it means the faculty of Ideas. There can be no doubt that in the latter stages of its history the Latin *mens* has acted powerfully as an attraction. But in the examples from Chaucer we saw that he regarded Thought as the most fitting English word to represent *Mens*. The change therefore that has taken place in the position of the word since Chaucer's time is very considerable, and it is one which may reasonably provoke some curiosity.

I think that an historical explanation can be given. The popular use of the word Mynde in the fourteenth and fifteenth centuries was so intimately associated with the religious custom of commemorative masses for the Dead, that it seemed unfit for any signification that was of a totally different kind. In fact the use of the word for obits or periodical commemorations of departed relatives may be said to have stopped the way, and retarded the movement of the word Mind towards its destined station. For already there can, I think, be no doubt that the attraction of *Mens* had begun to operate. The examples from Wiclif seem to exhibit this plainly.

I apprehend then that the retarding obstacle was the popular use of the word Mynde for days and occasions of Commemoration, whether yearly or monthly, and that the obtrusion of this idea was too strong to allow the word to approach that post to which in other respects it was manifestly called. A good collection of facts in illustration of the prevalence of this use may be seen in Brand's *Popular Antiquities*, ed. Hazlitt, Vol. ii., p. 229: where it is also said that this use of the word is still retained in Lancashire. The following is quoted from Fabyan's Chronicle:—

In 1493 died Sir Roberde Chichely, Grocer, and twice Mayor of London, the which wyllled in his Testament that upon his Mynde Day a good and competent Dyner should be ordayned to certeyn pore men, &c.

The same historian left elaborate directions for his own "Moneth is Mynde". Anne Barneys in a letter written about 1536 to Thomas, Lord Crumwell, speaks of a Month's Mind in which there were as many as a hundred priests in attendance.

More recently, Sir Henry Piers, in his *Description of West Meath*, describes the continuance of the practice and its name:—

In Ireland, after the interment of a great personage, they count four weeks; and that day four weeks all Priests and Friars and all Gentry, far and near, are invited to a great Feast, usually termed the Month's Mind.

And not only these recurrent obits, but also the periodical Commemoration of Benefactors to public institutions were called by this name. At All Saints Church in Bristol there existed, I know not how recently, a yearly custom of reciting the List of Founders and Benefactors, like the Commemoration at Oxford, and this ceremony went by the name of the General Mind.

We now pass on to the sixteenth century, and here our great source is the diction of the Bible translation with its successive revisions, extending from 1525 to 1611. And as we confine our view to the New Testament, we are struck with the almost finality of the stamp that William Tyndale imparted to the work in 1525: and we shall therefore take particular notice of his usage of our word. Through our first two groups in which Wiclif has *mynde*, but our Bible of 1611 has *mention*, *remembrance*, *memorial*, Tyndale has not retained *mynde* in a single place, and his word is in nearly every instance the same that is familiar to us now. In the groups that follow, where we have now *mind* but Wiclif had some other word, the asterisks in the Wiclif quotations signify how often Tyndale has *mind*, and accordingly how closely his steps have been followed by subsequent revisers. We may therefore dismiss this branch of the evidence with the remark; that whatever progress the Bible diction of the sixteenth century exhibits upon Wiclif in regard to the career of our word, was already mature in Tyndale's time, that is, in the third decade of that century.

And now came the Reformation, of which the effect was to abolish services commemorative of the dead; and if I have been right in thinking that the general use of the word *Mynde* in connexion with those religious customs was a retarding influence, which counteracted the tendency of the word to imbibe the spirit of *mens*, and to become its English representative, we may henceforward consider that it is liberated from that obstruction.

However it is to be accounted for, whether in the manner here intimated or in some other, it is a palpable fact that in the second half of the sixteenth century, the word *Mind* was prevalent as a favourite or fashionable word, a word of vogue: it was employed on all available occasions, like some new and fascinating toy. The second half of the sixteenth century rises up in the literary chronology of England over against the

second half of the fourteenth century, like mountain ranges facing each other and separated by a spacious valley that has almost widened to a plain. How great is the contrast between the avoidance of the word by Wiclif, and its free employment by the Bible translators of the sixteenth century is only partially intimated through the quotations already given. Only partially; for two reasons. In the first place, because our Bible diction is in its bulk a hundred years older than its reputed date; and in the second place, because these quotations were confined to the New Testament. Had we no better material than the Translations for proving the immense spring our word made in the second half of the sixteenth century, it would only be possible to establish the fact by a constructive piece of argumentation. But we have the best of all materials, the works of a great and varied dramatic poet, and we shall see how Shakespeare's free use of the word contrasts with the shyness of Chaucer.

That the word occurs a vast number of times in Shakespeare may readily be seen by the Concordance of Mrs Cowden Clarke or the Lexicon of Dr. Alexander Schmidt. But the numerical prevalence is a small part of the matter. It is the indefinable range and universality of a word that seems always in place wherever any action or affection of the internal constitution of man is to be designated. I can think of no better means of exhibiting this than by the diversity of rendering which the word has received in a careful foreign version. For this purpose I select Guizot's *Œuvres complètes de Shakspeare*, first because the translator knew the language he was translating, and secondly, because it is in prose. A poetical translation would evidently be useless here. I have in some cases added the renderings of a German translation, but this I could not complete, because my German prose Shakespeare, that of Eschenburg (Zurich, 1798), breaks into poetry sometimes. I will group the quotations under the French words which answer to Shakespeare's *mind* in Guizot's translation.

Ame

Jewels move a woman's mind.—*Two Gent.* III. 1, 91. *Herz.*

A mind that envy could not but call fair.—*Twelfth Night.* II. 1, 26. *Herz.*

The error of our eye directs our mind.—*Troilus* V. 2, 108. *Herz.*

I have a mind presages me such thrift.—*Merchant* I. 1, 175. *Herz.*

Not sick unless in mind.—*Merchant* III. 2, 236, 237. *Gemüth.*

Your mind is tossing on the ocean.—*Merchant* I. 1. *Gemüth.*

Both in mind and in my shape.—*Errors* II. 2, 196. *Beides an Seel und Leib.*

The mind shall banquet though the body pine.—*Love's L. Lost*, I. 1, 25. *Geist.*

While Gloster bears this base and humble mind.—*2 Hen.* VI. I. 2, 62. *Denkart.*

Esprit.

All dedicated to closeness and bettering of my mind.—*Tempest* I. 2, 90.
Geist.

To still my beating mind.—*Temp.* IV. 1, 163. *Herz.*

Complete in feature and in mind.—*Two Gent.* II. 4, 69. *Gemüth.*

Which never laboured in their minds till now.—*Midsr. Night* V. 1, 73.
Seelen (but this in poetry).

Men's minds mistrust ensuing dangers.—*Rich.* III. II. 3, 42. *Herzen* (in poetry).

A proverb never stale in thrifty mind.—*Merchant* II. 5, 54.

That song will not go from my mind.—*Othello* IV. 3, 30. *Sinn.*

Being over-full of self-affairs, my mind did lose it.—*Midsr. Night* I. 1, 114.

Coeur.

Minds swayed by eyes are full of turpitude.—*Troilus* V. 2, 110.

He bears an honourable mind.—*Two Gent.* V. 3, 13.

So hard to me that brought your mind.—*Two Gent.* I. 1, 132.

Some messenger that might her mind discover.—*Two Gent.* II. 1, 155.

He bears too great a mind.—*Jul. Cæs.* V. 1, 112.

Mémoire.

How is it that this lives in thy mind?—*Temp.* I. 2, 49.

This present grief had wiped it from my mind.—*2 Hen.* IV. I. 1, 211.

Bearest thou her face in mind?—*Antony* III. 3, 32.

But when I call to mind your gracious favours.—*Two Gent.* III. 1, 6.

Call we to mind.—*1 Hen VI.* III. 3, 68.

Let me put in your minds if you forget.—*Ric.* III. I. 3, 131.

Pensée.

He tells you flatly what his mind is.—*Shrew* I. 2, 75.

Be not of that mind!—*Rich.* II. V. 2, 107.

Your betters have endured me say my mind.—*Shrew* IV. 3, 75.

There are worthies acoming will speak their mind.—*L.L.L.* V. 2, 579.

Sentiments (plural).

Keep in that mind.—*Merry Wives* III. 3, 71.

Keep your ladyship still in that mind.—*Much Ado* I. 1, 113.

And all the world was of my father's mind.—*As You Like It* I. 2, 215.

Continue still in this so good a mind.—*2 Hen.* VI. IV. 9, 17.

And in a tedious sampler sewed her mind.—*Titus Andron.* II. 4, 39.

These are some of the French words of more frequent occurrence as equivalents for *mind*, but there are a vast number of places in which none of these more obvious ones have been found to fit. In *Lear* I. 3, 15; "whose mind and mine in that are one"; the French is *intention*. In *Coriolanus* I. 1, 175; "With every minute you do change a mind"—the word is *résolution*. In *All's Well* I. 3, 22; "he and his physicians are of a mind"—the word is *d'accord*. In *1 Hen.* IV. II. 4, 114; "I am not yet of Percy's mind"—the word is *caractère*. In *Cymbeline* V. 4, 212; "I would we were all of one mind, and one mind good"—the word is *idée* (sing.). In *Twelfth Night* I. 3, 105; "I am a fellow of the strangest mind"—the word is *idées* (pl.).

In *As You like It* IV. 1, 96; "I would not have my right Rosalind of this mind"—the word is *façon de penser*. In *Much Ado* I. 3, 63; "would the cook were of my mind"—the word is *avis*. In *L.L.L.* IV. 2, 33; "being of an old father's mind"—the word is *sentiment* (sing.). In *Lear* IV. 7, 63; "I fear I am not in my perfect mind"—the word is *sens*. In *Hen. VIII.* II. 4, 34; "Sir, call to mind that I have been your wife"—the word is *souvenir* (subst.), and the German is *erinnert Euch*.

This by no means exhausts, I do not say the number of times the word occurs in Shakespeare, but even the varieties of phrase to which the French translation has recourse. In a large number of instances it is rendered by a verb, as *rappeler à*, to put any one in mind; *songer à*, to have a mind of; *se souvenir de*, to have something in mind; *me le remettre*, to put it in my mind: *nous nous expliquons*, break our minds at large, 1 *Hen. VI.* I. 3, 81: while in the well-known line, "God put it in my mind to take it hence," 2 *Hen. IV.* IV. 5, 179, the verb is *inspirer*.

If now we cast our eye back over the past description, we cannot but be struck with the great change in the position of the word since the fourteenth century, when it appeared to Chaucer unfit to represent the Latin *mens* and the Italian *mente*. In Shakespeare we see it ready to make its appearance upon every occasion which touches the inner side of man or of human conduct. The phrases in which it figures are of various kinds, and they have sprung from various sources. It looks as if the exuberance of its flow might betoken the appliance of some fresh impulse, or the withdrawal of some impediment. I apprehend that both had in fact happened;—what the hindrance was has already been surmised: the impulse was certainly nothing else than the enlarged familiarity with the Latin *mens*, and the congeniality of those philosophical writings in which that word so repeatedly presented itself.

But if in the Elizabethan era the word is freely and copiously used, its sense is indefinite. For every phase of thought, feeling, sentiment, opinion, inclination, fancy, temper, humour, disposition;—the word *mind* serves on all occasions to express anything whatever that is of the inner sphere of human nature. It is not exactly that the word is used as a comprehensive word, because all these affections come under one reigning idea; it has not come to this as yet:—but rather, that the word has distanced all its old rivals in its province, and it is now recognised as the current term in vogue for all such phenomena. Like some vague nebulous expanse, it is capable of consolidation, but it is not yet consolidated. Hardly anywhere in Shakespeare, not even in "Whether 'tis nobler in the mind"—has the word arrived at that locality and compactness which is felt in Milton's—"The mind is

its own place". If we compare it with the word Soul, we shall see the difference. The theological term is concentrated, individual, almost personal; and this quality it owes to the bracing effect of its continually standing face to face with its antithesis the Body. The time was come for the Mind as the intellectual region and organ of ideas to win recognition and to be individualised in its turn. The whole upheaval of new thought in the fifteenth and sixteenth centuries was, not less in word than in deed, for the establishment of Mind. The Soul truly was a region and an organ of ideas—where then was the vacant place to be occupied by Mind? We may perhaps put it somewhat as follows: If we take the Good, the Beautiful, and the True as a convenient summary of the chief heads of Ideas, we may say that the Soul's approach was by the way of the Good, and that there had risen up in humanity a fresh demand that the whole province of Thought should be newly explored by the way of the True.

The Middle Ages had entered by inheritance upon the grand possession of Faith and Religion; and they had degenerated from the passion of extending it with love, into the policy of defending it with jealousy. The artistic and poetic faculties had indeed been admitted into fellowship with religion; but philosophy had been timidly watched, sparingly encouraged, and confined to authorised fountains of premisses:—in short, she had been denied her liberty, until that liberty was vindicated (not without blood) by the strong and irrepressible self-assertion of the human Mind.

Theology could not have done without such a term as Soul, nor could the rising Philosophy proceed far on her way without some sharp and succinct expression to represent the inner side of Man, of Nature, and of All Things. The Ionian Anaxagoras had relieved the weight of mystery by his hypothesis of *νόος* as a power independent of matter and guiding its movements; Roman philosophy had resorted to *Mens* for the motive agency in *rerum natura*; these now mingled with English thought, and close at hand was a native English word almost echoing *Mens*, which, though familiar in every mouth, was as yet unattached to any strict function in its province, and the natural consequence was that it gradually came to supply the demand for a term in English which should stand, like *Mens*, as the antithesis and counterpart of Matter.

J. EARLE.

II.—THE SUBSTANTIALITY OF LIFE.

I.

It will be my endeavour in the following pages to demonstrate the substantiality of life; to render evident the actual existence of an identical, indivisible, perdurable, and self-sustaining substance, of which the transient phenomena, arising in consciousness, are but inherent affections. I wish, experientially, to reinstate the underlying entity, dissipated by Berkeley and Hume.

I have to set about this ambitious task in a rather humiliating manner, namely, by first assuming everything which I eventually hope to establish. I am, however, determined not to conceal any part of my working-apparatus; and do, therefore, openly presuppose as existing, and ready for action, the entire human individuality with all its faculties, assisted too by every available means of sense-extension.

This express postulation of the whole thing under discussion will probably be considered a *petitio principii* of the most glaring kind. But, without its full admission, I confess I cannot proceed a single step towards my aim. My consolation is, that, in starting with so bold and sweeping an advantage, I am only strictly adhering to the common usage of all sciences. For no philosopher will deny that, in the investigation of even the most elementary physical or mental event, it is always the feeling, thinking, and manipulating human being that constitutes the sole realising agent. Known, or unknown to the observer, it is his own matured sensibility and sentience, that actually furnish the colour and standard of any quality or value, which he may have objectively ascertained.

Indeed, whether we are viewing present phenomena of mechanical impact or chemical activity, or imagining primeval geological evolutions, or forecasting developments of the future, the great postulate, tacitly underlying all our observations and speculations, is the pre-existence and unimpaired efficiency of the complete human individual. These things are so, were so, will be so; but only when realised by beings like ourselves. The nebular hypothesis, the atomic theory, the ultimate chemical element are—as every philosopher is well aware—hypothetical facts conceived in no other form and material than that of specific human feelings, and they can, therefore, be true only when we add: "Thus these legitimately surmised realities would appear to spectators of our kind".

Our organised lives form the broad, steady and indispensable ontological basis of all impressions and ideas, of all actual con-

nexions and fulfilments whatever. We cannot outsoar our nature. We cannot eliminate any part of ourselves. Our whole individuality is present in every inquiry; and it is always some peculiar group of our own aroused faculties that we are contemplating in any kind of investigation.

It is true that in the framing of our metaphysical schemes, we have from time immemorial been striving to transcend the sphere of our personal endowments. But it needs only sufficient candour to become aware that in all these attempts we have merely objectified, as groundwork of our cosmological constructions, sometimes one and sometimes another set of our own vital activities, and have then endeavoured to complete the totality of existence by identifying with this particular portion of ourselves all that was first left behind of our naturally indivisible being. Sometimes the whole, and sometimes only a part, of our sensations are thus hypostatized as primordial elements of the entire universe. At other times, it is the thinking or reasoning energy that is made to account for everything. Then the will. Then some special emotional affection. Or, again, a potentiality of all these subjective factors. Never anything but detached faculties of our own being, and with no other result than the transfiguration of the cosmos into a distortedly projected semblance of our personal abilities.

Philosophical systems become very transparent when viewed from this organic standpoint. As authority or custom may happen to incline us, we play fast and loose with the various potentialities of our organisation, extolling and depreciating them in turns. A special importance and dignity, however, necessarily attaches to that portion of our nature, which is conceived as the causative source of the rest. Therefrom the whole conduct of life receives its characteristic tinge. For it will not fail essentially to influence the bent of our strivings, whether we attribute effective priority and controlling supremacy to the senses or to the intellect, to the sensualised or to the intellectualised appetites. A system of ethics can be scientifically grounded only on a correct knowledge of vitality. With what uncertain feelings of propriety has humanity been wavering between the extremes of organised capacities, now for a little while getting into the wholesome and fruitful mean, and then again consuming itself in wasteful lust, or stagnating in sterile precepts!

Considering then, that the earnestness of our aims will always be directed towards the fostering of what we believe to be the embodiment of the truest potent reality, would it not be wise, once for all, ungrudgingly to acknowledge the position actually occupied in nature by the complete and indivisible human or-

ganisation? For, is not this individual and monadic totality, in fact, everywhere the really substantiating agent, the creative power whose subtle and intricate modes of normal reaction constitute the whole universe of experience called nature? And is not at all times the value of any other thing rigorously determined in every respect by the actual efficiency of the appreciating agent, by his realising qualifications then and there?

The individual human organisation forms, indeed, the actual incorporation and potential medium of all fulfilment. Whenever this truth becomes adequately established and understood, it will impart an incalculable impetus to existence, will bring designedly about, "whereof our nerves are scant," "more life and fuller". For, to recognise how in our transitory frame, by means immeasurably transcending the reach of personal volition, there has become embodied the life-worthiness of the illimitable past, is to receive the wealth of our being as a sacred trust, and to own a binding mission to labour for a progressive future.

But it is easy to profess a faith, hard to give it a solid foundation. The philosophical arbitrariness of thus dogmatically constituting ourselves the pre-endowed and realising centre of the world, lies, on the one hand, in the difficulty of accounting under this assumption for our own origin and development, on the other hand, in the difficulty of reaching, from such a focal position of mere subjective consistency, any kind of reality outside our own mind.

It must, however, be remembered that these two perplexities have irrepressibly confronted systematic thought, from whatever side it may have attempted to assimilate nature. The former difficulty has generally been allayed by traditional beliefs or hap-hazard conjectures. The latter has formed the main puzzle and theme of philosophy ever since Parmenides and Zeno first directed the attention of thinkers to the strange incongruity obtaining between the ideally completed world permanently resting in mind, and the fragmentary world transiently and incoherently figured by the senses.

Meditative reflection necessarily leads to the discovery of a disposition of ideas ever tending towards all-embracing unity and repose. Direct observation, on the contrary, is beset by a rush of phenomena ever moving through inexhaustible kaleidoscopic constellations.

In the world of thought-conception, the fundamental relation between ideas appears to be one of graduated co-inherence, of involuted union; any detached notion forming an integral part of a pre-existing and wider totality. In the world of sense-perception the fundamental relation between phenomena seems

to be one of more or less orderly sequence and change, a regulated passage from one state into another.

In the realm of ideal or logical subsistence, things are, even through discursive reasoning, more and more adequately recognised to be what they are for all times. In the realm of physical or phenomenal display, existences are perceived continually to cease to be what they were, and to become something entirely different.

To which of the two orders then belongs genuine reality? To the ideal, to the physical, or to both? And how are these so disparate, and yet so intimately interblending worlds to be reconciled, to be comprehended as co-operant parts of one and the same totality?

This is the great dilemma of the immutable and the flowing order that has perplexed philosophers for more than 2000 years, and we also, in spite of so many baffled attempts, are still persevering in the endeavour to gain access to the secret. From "ideal realism," *i.e.*, the projection into transindividual and autonomous existence of the logical order, to "empirical realism," *i.e.*, the projection into transindividual and autonomous existence of the physical order, every imaginable combination has been essayed. But, however contradictory to each other these sundry philosophical constructions may be, they have one and all received their cue in direct continuity from the Eleatic antinomy. This one idealistic *aperçu* has undeniably formed the fertile source of all our systems. The atomic systems, the sceptical systems, the Socratic systems of antiquity avowedly take their rise from this same unquenchable fountain-head of doubt. And it would be unpardonable in us who owe to ancient Greece almost our entire culture, not generously to acknowledge also the philosophical inheritance which it has bequeathed to us, and which it seems to me we have not yet succeeded in very essentially improving.

Is not the problem of the relation and intercommunication of the thinking and the extended substance, of the intelligible and the sensible world, which has formed the subject-matter of philosophy since Descartes, merely a revival of essentially the same puzzle concerning reality? Even the Critical Philosophy, with its copious appliances and minute distinctions, has it not after all only elaborately fortified the Eleatic position by deepening the gulf between the foreign influences underlying the chaos of appearances arising within our sensibility, and the transcendental subsistence of their conceptual transfigurations? Kant's great effort to reconcile through reason the intelligible and the sensible world has proved a failure like all former attempts. In the system of

critical idealism, the conceptual order mentally fashioned and qualified resides as infallible actuality, as ideal and undeviating object, in a general superindividual consciousness. But where, on the other hand, do we find sustained the reality of the affecting powers, of the things outside consciousness? What can it avail passionately to denounce as mystical and fantastic previous forms of idealism, and peremptorily to decree by dint of reason the existence and efficiency of an outside world, when there is no imaginable way left open by which external influences can at all specifically qualify the passive and empty forms of sensibility—pure ideal time and space? And, besides, if the influences that are admitted somehow nevertheless to affect our sensibility are actually things-in-themselves, and if our intelligible Ego also belongs to that order; then, as all spontaneous and synthetical activity emanates from the intelligible Ego, is it not likely that under such conditions reason would indeed recognise the transcendent nature of things-in-themselves, would reconstruct from the incoherent data given to sensibility, by force of its own transcendently derived faculties, the eternal aspect of the intelligible world?

The transcendent oneness of subject and object, the identity of thought and being involving the existence and supreme reality of an absolute substance—the very doctrine enunciated by the Eleatic sages—certainly constitutes one of the only two philosophical positions that can at all be consistently occupied. Transcendentalism in any of its forms necessarily leads to this consummation.

But, before indulging in extreme prospective fulfilments we have first of all scientifically to secure a path that will not lead us astray in our search after true existence.

Starting then, as we anyhow must, from our own individuality, we find that, within us, by dint of the secret powers of our nature, there arises a series of phenomena, a complex phantasmagoria of things and events, in every respect the creation of those intrinsic powers. Nevertheless, in certain aspects, these mental phenomena seem most obviously to represent existences and occurrences, having subsistence in a region not occupied and governed by our own being. The problem, the supreme problem of the theory of knowledge, is either to prove that the reality of the world, which appears to subsist outside consciousness, is altogether an illusion; or, accurately, to demonstrate the mode of inter-dependence and inter-communication, unifying not only the two seemingly heterogeneous spheres of mind itself, but unifying, moreover, the powers inherent in mind with the forces extrinsically influencing the same.

It is a plain and incontestable truth, that all we know, and

all we can know, of things is simply what may become revealed of them vicariously and sympathetically as affections of our own being. Our own sensibility is the foundation of all our supposed knowledge of an external world, and our consciousness can be composed of nothing but our own feelings. It is therefore quite clear that conscious sensations can only result from the action of powers already belonging to ourselves, already forming part of our constituted individuality. Thus the whole universe, of which we become aware, resolves itself into a congeries of subjectively sustained and combined ideal states. It forms a creation in mind, mysteriously accomplished and upheld. And, however fleeting in all its time-manifestations, it nevertheless symbolises some enduring presence. What then can be the true nature of the comprising and sustaining something, fragmentarily revealed in the desultory flashes of conscious life?

We cannot wonder at the suasion of logical conceptions, at the preponderance and supreme reality so often and so emphatically assigned to the ideal world, when we consider that all qualities predicated of any subject whatever are always recollected as an incorporated part of our mental being, and are, moreover, on due consideration, found to form, from the very beginning, a subjective group of affections, momentarily singled out from the boundless possessions of ideality, and somehow projected and consolidated into the semblance of outside subsistence. Intrinsically and ideally are shaped, qualified, discriminated, and unified all phenomena, all influences that affect the senses, that outwardly or inwardly modify sensibility.

It cannot be denied that, when thus realised in its inclusive or ratiocinative aspect, the universe, established in mind, opens to the reflecting subject an insight into an organic enchainment and essential communion of all phenomenal affections. Deep inwardly beyond the fretted screen of temporal occurrences are truly recognised the eternal ideas that sustain the scattered and perishable manifold. And it would be strange, indeed, if the fervent soul, exulting in this inalienable wealth of widest thought and emotion, were not to feel the limitations of its own individuality melting into infinity; if its whole being, amplified and completed, did not seem in blissful consummation to be merging into the One-and-All.

But, on the other side, in their perceptual or phenomenal aspect, the contents of mind do not reveal themselves as co-inhering in one and the same indivisible and identical substratum of thought. On the contrary, thus viewed, ideas seem merely to constitute more or less collective remembrances of previous experience. They are, in fact, recognised as only *representing* groups of concrete sensations, held together by similarities ob-

taining between them, and they are found to be associated with each other by laws that originate in the phenomenal order, *i.e.*, in the coexistence and sequence of experienced affections. Our consciousness then discloses itself, as composed of nothing but the orderly appearance and reappearance of sensations and perceptions, inscrutably arising and incomprehensibly vanishing.

We have, no doubt, to admit a centripetal as well as a centrifugal view of nature. How are these two opposite orders connected with each other?

It is true, whatever way we may be looking, sound reasoning ends in shutting us up irresistibly and most thoroughly within the magic circle of our solitary mental subject. Nothing from outside can in its own essence and likeness penetrate this total isolation, or coerce to foreign modes of action the intrinsic proclivities of so private and specific an autonomy. But, even then, without the least direct reference to external influences, what a contrast between the two poles, or rather between the central and the peripheral capacities of our mental being! What divergent revelations of ideal reality are inevitably forced upon us by a mere change in the adjustment of our mental vision! By fixing our attention exclusively on the conceptual or central order we consistently become transcendentalists. I do not mean transcendentalists of the compromising or critical kind, but genuine transcendentalists, beholding the transphenomenal essence of things, the everlasting glory of archetypal being. By restricting our view to the perceptual or peripheral order we inextricably become sensational empiricists, receiving all our grounding knowledge in the form of sense-impressions, and being compelled, therefore, to adopt nominalistic idealism in which everything is phenomenal and evanescent.

In this idealistic dilemma, one question is uppermost with our practical sense: "In which direction may we eventually hope to burst through the secluding spell which wholly encompasses our individual microcosm?" Will it be through its centrifugal or through its centripetal activity that our mind will succeed in rationally establishing vital and fertile relations with the macrocosm of Otherness, with the great universe of non-coinciding actualities? We desire, designedly and unreservedly to open our being either to the central or to the peripheral influx—whichever way the creative tide may flood our existence with higher life.

However legitimately our reason may seem to imprison us within the narrow confines of pure individual idealism, our strongest instincts carry with them the conviction of outside powers influencing us all round. Our whole active nature, our emotional and our volitional propensities revolt against the dreamy

and illusionary self-seclusion imposed upon us by ratiocination. Irresistibly impelled, we rush out of self to grasp realities beyond. Our most urgent needs, and our most exalted desires, alike leap the bounds of self-sufficiency. Not only our immediate appetites crave appeasement through the appropriation of externalities, but our tenderest sympathies hasten to bestow on other lives the most precious and ideal worth of our own being, and our loftiest pleasures make us zealous to mould foreign existences into the perfect shape of ideal purpose.

Nevertheless, in thus attributing actuality to relations that common-sense unhesitatingly believes to subsist between ourselves and an outside nature, we are evidently altogether transgressing our power of rationally dealing with the data of consciousness. For, how can our reason, a pure mental faculty, under any solicitation whatever, be rendered competent to transplant subjectively inherent ideas into a foreign region of altruistic subsistence, whereby they become elevated to the transcendent dignity of self-consistent realities? This, however, is exactly the licence we have been indulging in, when we allowed our instinctive or conscious promptings to overreach the spell-bound circle of subjective idealism. For this purpose we had to assume as existent, on the one side, a bodily organisation or executive apparatus governed by our mind, but by no means coinciding with the same in its reality; on the other side, we had to postulate independent external existences in efficient interaction with ourselves. All these realistic feats were, no doubt, most fluently accomplished by us. But we shall have to admit that their philosophical justification remains to the present day the great unrealised desideratum of the theory of knowledge. Theoretically, we still find ourselves locked up within a sphere of dreamlike apparitions, which we call our mind, and now the puzzle is how, conformably to reason, to win our way back again, not only to the things beyond our skin, but also to the special vital appurtenances contained within that bodily envelope.

The fact is, we are psychologically debarred from the access to any pathway leading to outside existences. Our mind cannot go out of itself to meet other things and to blend with them, nor is it anywhere open to the entry of foreign beings.

We have once for all to put up with this fundamental truth. It can never be subverted. But examining the aspect of ideal nature yielded on the one side by the logical, on the other side by the phenomenal propensities of our mind, we discover in both these orders certain definite voids created by unsatisfied relational implications, which implications are distinctly connected with the positive properties of mental occurrences as such. Here it is above all the evident orderliness, manifesting itself in

the combination of ideas that seems to imply something extraneous to mind, coercing single mental states into coherent and consistent connexions. First, there is thus suggested some substratum supporting and perpetuating for reproduction the successive mental states. And then, as we do not find anything in mind itself to account for the coalescing of its disparate moments into specific configurations following each other in regulated sequence, we are induced to infer an influence of some kind controlling this grouping operation. Moreover, the ideal order thus compelled seems to subserve purposes transcending purely ideal capacities. Somehow, namely, we have ourselves the power of imposing permanent changes on the coalesced appearances or perceptions, which changes evince themselves thereafter as forming part of the mind-compelling influences. For instance, I feel coerced to realise the definite and complex mental state which I call a sheet of paper. By the exertion of certain activities within my power I now change the appearance of this sheet of paper so that it consists of ten pieces instead of only one. Henceforth, this transformation does constitute part of the mind-compelling order. I shall be forced to perceive ten pieces whether I wish it or not.

It is true I become aware of all this solely through the medium of subjective feelings, but some hypothesis has to be framed to account for the fact of compulsion, which fact cannot be included in the operations performed by the mind's own spontaneity. We give expression to this experience of outside compulsion by assuming causative agents as instigators of our compelled mental states. We know positively only the latter, but infer therefrom the existence and efficiency of the former. Physical forces or energies are nothing but such hypostatized or substantiated causes of compelled mental states, and the science of externalities consists in the construction of an hypothesis of energies that will adequately explain the facts and relations of the peculiar order of phenomena, apparently derivable from direct sense-stimulation.

It will, however, be best frankly and distinctly to avow that we do not possess within our purely mental constitution any rational premisses from which could be deduced the seat and nature of the compelling influences. The supposition of powers outside our individual minds will ever form the standing desideratum of belief and knowledge, without which not a single scientific or practical step can be taken, and which has on each special occasion to be made good by prompt hypothetical assumption. All activities of our nature are moulded on this transindividual supposition, and receive their cue from it. But, as regards the special conceptual framing of the hypothesis, the

sole guarantee of its correctness can only be afforded by the adequacy of the conception to account for all facts and relations of the so-called outside world.

Thus it happens that the following question has played a great part in philosophy, and still continues to arise: Is our mental being centrally or peripherally coerced? Does the compelling influence work centrifugally or centripetally? From intellectual emotion to thought and sense, or from sense to thought and intellectual emotion? It is of supreme practical importance that this query should be decisively answered. Which of the two chief assumptions can best explain the scheme of nature: the transcendental or the experiential hypothesis; the central or the peripheral influx?

II.

Leaving out of sight the relation of sensations to the surmised extraneous source of their excitation, and taking the immediate and elementary affections of the mind as simply given, the main problem of philosophy, since Locke, has been that of the synthesis of sensations and perceptions.

Sensations, as such, are experienced singly and unconnectedly yet in consciousness they are found coalesced with a number of other remembered sensations into distinct percepts. A percept is an integrated assemblage of present feelings, an individualised set of impressions and ideas; yet, discrete as these mental objects seem to be, they are found conjoined with each other so as to form, not only a coherent totality of configuration, but also an endless train of regulated sequence. Whence this correlative union and orderly procession? In the concrete appearances themselves there is evidently nothing discernible that could in any way account for their definite disposition and connexion. Therefore, somewhere in the hidden recesses of the manifesting structure, there must reside a power, which coerces the unconsolidated and successive manifold of sense into a well-regulated system of conscious appearances. The question is: In what manner, and in which of the provinces of the feeling, thinking and willing mind is this synthetic power exerted?

"No connexions among distinct existences (impressions or perceptions) are ever discoverable by human understanding. We only *feel* a connexion," says Hume.

"As a connexion does not impress our senses, but has to be made by ourselves, it does not belong to the receptivity of the subject, but to the spontaneity of the understanding, of which it is a function *a priori*," says Kant.

The antagonism of our two leading philosophies is tersely

expressed in these most contrary opinions regarding mental synthesis. According to Hume, our judgments about the conjunction of phenomena are based on an association of impressions and ideas established, and at last rendered indissoluble by custom. The inference, *i.e.*, the mental transition from a present impression to the idea of its cause or effect, is an action, not executed by reason, not accomplished by an original energy of the understanding, but wholly impelled by experience. Because two definite impressions have often been experienced in immediate sequence, therefore the presence of one of the impressions irresistibly calls forth the remembered idea of the other impression, and this automatic association is under such circumstances furthermore accompanied by a peculiar sentiment, which assures us of the reality, or objective validity of the connexion, making it appropriate and safe for us to act upon the ideal suggestion.

The strength of this view lies in the demonstration of the fact, that inferences concerning the actual connexions of phenomena are derived from experience, and that they take place in the sensible sphere of the mind, take place there with an energy independent of the promptings of abstract thought and deliberate volition. Direct judgments about matter-of-fact, genuine synthetical judgments, which declare that because a certain something is present another certain something is also present, or because a certain something has just happened, another certain something has also happened or is about to happen,—such immediate conclusions concerning reality are altogether experiential in their origin, and occur under the sway of a present impression as automatic and sense-derived mental manifestations. It has become more and more certain, since this novel discovery of a whole world of unreasoned conclusions, that judging-operations of this kind, unconsciously performed within the domain of perception, constitute indeed the very groundwork of our natural relations and practical doings. Thus far we are undoubtedly conscious automata, and we cannot help suspecting, that some kind of organic constitution must be at the bottom of this fundamental process of organic inference, or mental reflex-action.

The chief shortcomings of Hume's Association-hypothesis consist: (1) in the omission of an explanation why the ideas so necessarily connected with their suggesting impressions are themselves moreover truly realisable in nature as actual sensations—why the heat, suggested merely as idea by the flame, can also then and there be made good as an impression; (2) in the complete ignoring of any synthetical medium, and of any synthetising power.

The former shortcoming is intentional. Hume deliberately refused to account for the origin of impressions, and had consequently to avoid any allusion to the correspondence of the causally suggested ideas with their realising sensations. This is, however, just the point in causation most difficult to explain, and upon which the relation essentially turns. We are most anxious to learn how this consummation of matter-of-fact inference takes place; how the right sensation or impression comes to fit in at the right moment; how, for instance, the actual heat of the flame happens to be there to make good its suggested idea. This is a problem for the bare insight into which the 18th century was not yet ripe. It can be scientifically solved only with the help of the hypothesis of connatural evolution, a hypothesis which we shall have occasion to consider when its bearings on causation have to be discussed.

The other shortcoming of Hume's philosophy, or rather its creation of an absolute void beyond consciousness, is a necessary consequence of its premisses. Starting with nothing but single and elementary impressions, and their fainter copies, the ideas, it was impossible for experience, with only such clear-cut constituent pieces, to put together anything but a mosaic mind, a mind composed merely of clusters of elements. Of course, this aggregational compounding of our conscious existence was not quite ingenuously feasible. Memory and Association, though only manifest in their concrete results, had nevertheless to be indirectly recognised as forming part of the mental mechanism. Custom could not operate on nothing. In order to establish its connexions it had to work on the same secret resources that originally and spontaneously furnished the copies of impressions, and it had to work also on the hidden spring of ideal transition or inference. But, notwithstanding this surreptitious drawing on Memory and Relativeness, we have to admit that, in consciousness itself, the reproductions and associations are found accomplished without our becoming in the least aware of the means which have brought about these complex and flowing results. Here then, we have a clear exhibition of unconscious powers producing conscious effects, and we may once more parenthetically remark that it lies near to suspect organic foundations for the automatic processes evincing themselves as memory and association.

With Kant, mental synthesis is a subjective operation, intrinsically initiated, directed and executed. According to him, the coherency and order of phenomena are wholly due to original faculties of the mind. It is true, he peremptorily maintains that these *a priori* faculties are exerted only on material impressed on our sensibility. But he allows nothing

actual in the sense-material to affect, in any way, its subsequent synthesis. From somewhere, empirical stuff is kaleidoscopically received in the passive forms of sensibility, making up there a contiguous, but utterly unobjectified manifold. Thereupon synthesis begins. First the raw-material is congruously sorted and loosely connected. Then it is objectively and conceptually cemented together for good. All this is done by a certain spontaneous activity, emanating from our innermost being, the identical Ego, and differing *toto genere* from sensibility. This identical Ego, to which all synthetical processes refer, and without which the confused sense-material would ever remain unshaped, uncombined, unrelated and unconceived, is not itself phenomenally manifest, but belongs to the intelligible world. Its inalienable powers, however, evince themselves as functions *a priori* in the various modes of conjunction, through which the phenomenal world receives its universally valid coherence and unity.

The strength of this view lies in the recognition of a unitary system of innate synthetical powers, through which the particularly and severally experienced sense-affections receive their general relational significance.

The chief failings of the view are: (1) its non-appreciation of the actual correspondence, uninterruptedly subsisting between the ideally connected order, and its realisable sense-affirmations: (2) its non-acquaintance with the conspicuous sphere of automatic sense-judgments or percepts.

Thus, the Aggregation-theory of mental composition fails to recognise a primordial medium, in which connexions are actually established, and in which they then potentially subsist. The Transcendental theory of phenomenal coherence mistakes the conception and naming of combining processes for the actual powers that in reality unconsciously accomplish the conceived synthetical results.

Evidently, there lies somewhere, within the compass of nature, a fixed range of unremitting and controlling activity, from whose solid industry the orderly manifold of consciousness emerges ready-made, and to whose steadfast toil and safe-keeping the whole constancy and communion of the phenomenal world rests entrusted. It is plain, however, that the facts of individual consciousness do not themselves disclose the quickening source whence they spring. We have here nothing but a succession of distinct conscious states, nothing but a mere outflow of ever so many single feelings and thoughts. Something, nevertheless, there needs must be beyond this bare sequence of mental components, something harbouring them all, and persisting inexhaustibly one and the same. The countless changing and

passing states of consciousness obviously issue from some unperishing matrix, and there subsists some binding, living constitution, in which synthetical results, once achieved, thereafter safely and retrievably abide.

But where are we to seek for such a substantial entity?

Students of philosophy, who have earnestly pondered over the great theme of the synthesis of mental constituents, will have found every aspect of the question deepen into a still more fundamental problem.

Sensations and thoughts, the sole agents through which existences are revealed to us, are themselves ephemeral effluences, arising momentarily and as suddenly vanishing. How then can anything more enduring than a single sensation or a single thought become part of our consciousness? How can that, which is permanent in nature, be in any way manifested by that which is only a perishing semblance?

To gain an approach to this chief enigma of philosophy, we will first explore it in its least complicated presentation. The most immediate and elementary fact of consciousness is undoubtedly that which is called a sensation or impression. So many aerial beats, for instance, strike the tympanum in a second, and give rise to a corresponding multiplicity of vital beats in the auditory tract. It is certain that the sensory impulse received and vitally responded to, consists of numerically discrete units of action, of which, moreover, each ceases to be, as soon as its successor becomes present; now, notwithstanding this serial ingress of non-adhesive and momentarily perishing shocks, the sensory result appears in consciousness as a synthesised, homogeneous, and enduring whole, as one single coherent impression.

I venture to say that this simple statement contains as much unsolved mystery, as may well be condensed into any problem. Indeed, we need only find the true explanation of this one elementary mental occurrence, and with it would be opened to us the most profound secret of mind; for it is obvious that the very life-spring of memory and personal identity is involved in its solution. We should then know, how the unity of our being is maintained amidst its multitudinous affections, and how these relational affections are substantially preserved, in spite of their phenomenal or conscious evanescence.

Time, and everything in it, reveals itself as made up of consecutive moments, each preceding instant lapsing into nothingness at the birth of the next. To our conception time seems ever fleeting away as irrecoverable, past, ever sliding out of sight into the illimitable vacancy of that which is no more, and sinking along with it all its weight of conscious wealth.

Sorrows and joys, sensations, thoughts and actions, no sooner are they realised than they are pushed out of the way again, to be followed by others, in new succession. Yesterday has run out never more to return, and all that is thus passed, is gone by for good.

What magic power is it then, that, nevertheless, contrives to save the complete and intricate fabric of our mind from the nihilistic perils of these its timely wanings, that even succeeds in turning its irrecoverable losses to permanent gain?

Here we find ourselves inevitably brought face to face with this most solemn question concerning the nature of our innermost being. Shall we continue to evade with easy and empty phrases the stern meaning and relentless admonitions implied in its actual manifestations? Shall we conceal from ourselves the true mission of our lives, which is not to swoon back into the pristine bliss of all-comprehensive being, but laboriously to uplift higher still the now precious, pain-wrought inheritance that actually is ours?

Not that the wondrous sphere of ideality is at all to be denied. There exists in all truth as a firm reality, and not merely as an illusive fancy the veritably ideal. But surely its world-embracing picturings are not woven of hyperworldly preconceived thought, but of thought cosmically, slowly, solidly concerted from the first responsive quivering of blind life to its loftiest visions of sympathy and beauty. Thought is the bloom, the sublimation of life, not its fount and origin. And life itself does not scatter and darken the luminousness of transcendent thinking, but irradiates with revealing brightness the concentrated influences of dark and thoughtless things.

The two great cosmological conceptions, which are now struggling against each other for supremacy in human consciousness involve inevitably as ultimate result the decision: Whether life be indeed a deplorable aberration from the original fullness of thought-steeped being; or whether it be rather a desirable unfolding of more and more intense and ample world-consciousness.

The question here immediately at issue is: How from the conscious outflow of particular feelings and thoughts can the nature of their common source be inferred?

We find a very remarkable concurrence of the opinions of our two standard philosophers, with regard to this recondite problem of personal identity or individual substantiality. They both emphatically declare the impossibility of forming a philosophical conception of it.

Hume without much ado roundly asserts: "We have no idea of external substance, distinct from the ideas of particular

qualities, nor have we a notion of mind, distinct from the particular perceptions." This is plain and just reasoning for one who looks upon perceptions as "distinct and independent existences," and for whom mind, therefore, can mean only an aggregate of such perceptions, or indeed, not even that much.

But Kant, to whom, on the contrary, perceptions (in Hume's sense of the term) are nothing but indistinct and dependent appearances, and to whom, above all, the unity of consciousness is an undoubted and supreme fact, how is it that, with such diametrically opposite views, he nevertheless fully corroborates the experiential doctrine, that we know only mental states and that mind as a substance is not cognisable?

Kant also finds, as the result of his profound introspective research, that "when I enter most intimately into what I call *myself*, I always stumble on some particular perception or other". When I eliminate all attributes, that which I deem substantial remains unknown. Our reason is discursive, and thinks only in predicates, consequently we can never through reason reach the ultimate subject of all these predicates. The true Ego is only a sentiment accompanying all conceptions, but it can never become a conception itself. The Ego which we know is only empirical, is altogether made up of particulars. In time, in the "inner sense," nothing enduring is found, nothing, therefore, which could at all justify us in substantiating a thinking entity. The intelligible, identical Ego, which constitutes the unity of consciousness, must ever remain unrecognised, for it can never itself become an appearance, and it is only appearances that can be grasped with our understanding. Of course, it very readily occurs that the unity, apprehended in the synthesis of thoughts, is taken for a unity actually perceived, actually appearing. This, however, is a mistake, which may be called the "surreption of the hypostatised consciousness," a mistake which is at the bottom of all rational psychology, of all psychology which professes to derive its doctrines from data not experiential.

This is the deliberate confession of the most scrupulous and also one of the most penetrating of philosophers; one who in his ripe age—after a life of preparative meditation—had set himself to establish transcendentalism on an irrefragable basis. First, he believed a few months would suffice for the task, for he was already in possession of the entire groundwork of his system. But eleven long years of concentrated contemplation elapsed before he had accomplished the work to his own satisfaction. He then felt bound most impressively to warn all thinkers that no legitimate way can be discovered by which we are allowed understandingly to pierce beyond what is given in

experience, and that in experience only the synthetised manifold of sense is found. "*Noumenorum non datur scientia*".

What then is to be done? Is there, indeed, no method left by which we may, nevertheless, secure some cognisable foundation on which efficiently to ground the phenomenal display of the perishable manifold? Are we, in all reality, irremediably condemned to remain for ever utterly ignorant concerning that which gives unity and consistency to our being, and therewith unity and consistency also to the rest of the perceived and conceived universe?

It behoves us most carefully to consider this critical position, and to follow therein indications of natural truth with no less conscientious awe than Kant himself.

Hume and Kant are right. Self-consciousness does not afford us any knowledge of personal identity. Introspection does not teach us in what manner the manifold of experience is inhering in a substantial Ego; does not make clear how it is that all predicates refer to an ultimate subject; how it happens that time, carrying away our feelings and thoughts, does nevertheless not rob us of our mental possessions; how, on the contrary, these become the firmer rooted the more lavishly we dispose of them.

To escape from hopeless scepticism, it will be appropriate to remember here the fundamental hypothesis of all knowledge, the hypothesis connaturally preconcerted, and everywhere desiderated in experience, therefore also unhesitatingly adopted by instinctive and practical life. This hypothesis consists in the hypostatizing of definite causes or forces outside consciousness in correspondence with the definite impressions and perceptions inside consciousness. All science of existences over and above the appearance of our own mental states is based on this one supposition. Consequently the question now before us may, from this point of view, be thus expressed: Can the substance in which mental affections inhere, become an object, an appearance to an observing mind? Can it be viewed, by dint of conscious states, as an outside existence? If so, then a science of it can properly be framed in the same manner as all other sciences are framed. In other words: The unknown confluence of powers, which constitutes a person or individual, can it affect our sensibility in such a manner as may enable us through definitely occurring and varying modes of this our sensibility to recognise—just as we recognise any other thing or event—the secret giving substantiality to a person or individual thus observed?

It is undeniable that the something, to whose being we are ascribing individuality, impresses most intricately, delicately and specifically our senses, appears within our sensibility a

complete and complex unity of conformations and features, being thus perceived by us with surpassing distinctiveness and precision. A strange perversity of thought has hitherto marred the transcendent glory of this inscrutable mystery of sympathetic revelation. By affixing opprobrious names to it, calling it "perishable and corruptible body," or "senseless and inert matter," prejudice has succeeded in vilifying that which in the whole range of our experience is pre-eminently psychical: an abiding entity fixedly mirrored in mind on the sensitive foil of its transitory feelings.

This phenomenal presence, or bodily appearance, attests indeed a most miraculous display of constancy, affinity and intelligibility. In the depths of my own being I find steadfastly subsisting the full symbol of another existence, whose proper constitution and intrinsic essence ever evades my reach. But lo! in spite of all this exteriorising and excluding otherness, we are not foreign to each other in our innermost natures; for I, who am now so definitely and intimately affected by your actuality, do possess on my part the secret virtue of likewise impressing your being with a similar fulness of sympathetic recognition, becoming to it an understood and reliable presence.

When we turn from the contemplation of that part of our personality which we find generalised from the experience of conscious states as such, and which we call our mind, to the contemplation of an outside personality as revealed to us through the medium of our senses, we are struck with the infinitely diversified and elaborate contrivances which here evidently concur in the constitution of such a personal or individual unit. Though we recognise this only symbolically in modes of our own consciousness, still we may rest assured that a corresponding intricacy of constitution belongs irrelatively to the nature of the personality affecting us. Whatever personality may be in its own self, independently of our viewing it, it must necessarily be something at least as complex as the organisation by which its existence attests itself in our minds. Therefore, whatever this perceived organisation discloses to us, we may with perfect confidence symbolically attribute to personality as such, for it necessarily corresponds to some trait in its affecting or stimulating power.

It is this exquisitely attuned connatural parallelism of stimulated and stimulating states which renders science or knowledge of any kind possible. The appearances in space and time are specifically stimulated affections. Let the regulating rhythm in the stimulations be subverted, and all knowledge is at an end. We have then only delirious exhibitions continuing

so long as the intrinsic capacity of the organic structure is not exhausted.

Through the study of organisation we discover that consciousness accompanies only the functions of the highest, most concentrative, and therefore, most central parts of the organic individual; that, however, the remotest details of its constitution all contribute towards this structurally centralised and functionally centralising consummation of its personal unity. And we find, moreover, that this intrinsic consummation of organic forces is destined to become at last effective in extrinsic results, through the instrumentality of the volitional or executive part of personality. In truth, we discover that we have a wonderfully more complicated and extensive consistence than we are immediately conscious of; but that fortunately this deficiency in the general subjective feeling of ourselves can be remedied by objective study.

The special information which we are now desirous to obtain, is: Whether, among the symbolic occurrences of organisation, there can be detected any clue to the secret of personal identity or individual substantiality, a secret which, as all thinkers know, will not yield to purely introspective research.

We learn, as an indubitable fact of organisation, that every functioning portion of an organism accomplishes its task only by losing some integrant part of its substance, by parting with some constituent elements of its molecular constitution. It is clear that this mutilation would infallibly incapacitate it for a renewed functional effort equal to the first if some provision were not made for the complete restitution of its functioning substance. A sensory nerve, for instance, after a single responsive beat could not be in a condition adequately to respond to a second beat, if its functionally deteriorated substance had not been meanwhile promptly restored to its full integrity. If all the auditory pulses which go to make up a certain homogeneous sound, were not received and transmitted with equal responsive energy, the quality of the resulting sound could not possibly appear homogeneous. If, on placing one's finger upon something which awakens in the mind the sensation of specific touch, the functioning substance of the affected nerves suffered disintegration without adequate reintegration, then it is certain that no two moments in the sensation would be alike.

Identity of function necessarily presupposes identity of functioning substance. It is an unquestionable fact that a substance in functioning undergoes disintegration. Consequently, it is equally unquestionable that identity, manifested in two consecutive moments of any kind of organic function, must be due to the reconstitution of the functioning substance.

What is thus true of the many relationally functioning parts of an organism, must be true of the organism as a whole. If inequalities in the constitution of the entire organic unit, arising from excess of function of one or other of its organs were not duly equalised through correlative reconstitution, then identity of such an organic unit would be out of the question. The central changes wrought by the irruption of continually varying combinations of peripherically stimulated function would soon completely transform the structure of the central substance, in case the organic unit had not the power of renovating itself as a whole. What would become of the vaunted stability of the world of thought, if the random intrusion of phenomenal disturbances could permanently upset the perennial, the change-conquering equilibrium of the central substance, or rather of the complete monadic individual in whose unity and indiscerptibility the soundness of our mind and body safely reposes?

We feel, let us say, thoroughly tired out. The agitating appearances of the bright day have seemingly obliterated our previous store of confirmed knowledge. We search in vain within our exhausted mind for what we used readily to find there. Our will is impotent to summon up its legions of vassal thoughts. Our inner eye strays over emptiness. Let us then no longer wilfully resist, but fully and trustily yield ourselves up to nature. Softly and securely she closes all inlets of rousing impressions, withdraws the hum and stir of foreign presences, steeps our whole being in darkness and oblivion. And now, from out the unconscious depths of vital constructiveness our existence is made whole again, our lost possessions reinstated. We are, once more, ourselves, organically reconstituted, awakening to renewed activity, prescient bearers of all the guiding Past.

The philosophical import of these organic facts cannot be mistaken. Our personality is identical amidst its multifarious modes of functional yielding, only because its unity and integrity is adequately maintained by means of reconstitution. And it remains identical only in so far as such rehabilitation to complete structural identity actually takes place. This perfect state of substantial identity is however, fortunately, only approximately, and never fully attained. Adequately realised, it would at once put an end to all development, would produce an undeviating sameness of vital states, without individual growth, and without generical evolution. There can be distinctly traced, within the scope of individual life, a progressive cycle of anti-identical modifications. The natural growth of a being involves a constant deviation from its personal identity. It leads through pre-established stages of evolution to generical maturity, a condition of existence, in which the growing person has reached a

higher, a transindividual identity with the culminating status of its kind. This identity of adult beings of the same species is again only approximate. If in individual growth it regularly happens that personal identity is made to diverge from uniformity through generical influences, it also happens that the individual has in its turn the power of effecting changes in the identity of the genus. Simultaneously with growth, there occur further deviations from personal identity, caused by the acquisition of individual experience. Excellences of any kind, thus acquired, over and above those already organically embodied in the constitution of the genus, go, through transmission, to heighten the generical standard.

The identity, which we find manifested in vitality, is kept in this manner everywhere flowing and progressive, but it is an essential identity nevertheless, an identity so indispensable to life, that upon its strict conservation depends wholly, not only the consistency of our own personality, but also the appearance and order of the entire universe, as known to us.

Personal identity is grounded in an order of efficiency unthinkable more unfathomable than any thought of ours, than any kind of intelligibly discernible potentiality; unthinkable more substantial than anything found in conceptional revelation. It is perpetual experience, immemorial memory incorporated, systematised, and ever organically resuscitated.

For those, who can find no commensurable transition from their subjective feelings of mental mobility and subtlety to their objective feelings of organic stability and solidity, it may prove serviceable to give heed to the intimate nature of organisation. Not through the firmness of its constituent particles, but only through its composition as a whole and through the specific mode of its activity, does the living substance possess any degree of consistency and constancy. The sundry successive sets of constituent particles, which one after the other are forced in and out the specific cycle of vitality, are playing but a very ephemeral part in the phenomena of life. The peculiar arrangement and activity, which determine in all respects the nature of the living individual, are themselves occurrences intangible enough as actual presences. But the specific arrangement with its accompanying activity is during its perpetuation, moreover, quite newly and incipiently caught up from other pre-existing specific configurations and activities by most rudimentary collocations of particles; and these mere beginnings of organic new formations are ultimately developed into the full likeness of their genealogical prototypes, solely by dint of the transmitted compository influence. Thus, in endless train, the bare peculiarity of arrangement is being transferred

as such, from one individual to another; an imperishing possession, very obviously secured by something altogether transcending the identity of material constituents, on which—according to some—all genuine permanency is based. The successive material embodiments are completely broken up and scattered to the winds, yet the 'form' indelibly endures. One and the same persisting presence is ever visibly underlying its many changing and perishing presentations, is moulding with perennial potency all accruing stuff into its exact type of organic conformation, compelling it, for a while, to subserve only its own unitary purposes.

All this means, the recognition, indeed, of a hyperindividual actuality, much of the same order as Platonic ideas professed to be; but the conception is experientially, not transcendently derived. The Platonic idea was the reminiscence of an archetypal order only intelligibly existent, and connected with our sensible world of ectypal manifoldness merely by help of a supernaturally pre-established harmony. The organic idea is the symbolical representation in human conception of the actually embodied synthesis of a sensible manifold, realised in thought by help of a naturally established harmony between the perceiving subject and the perceived object. The former idea was the expression of an ideal estrangement, the latter of an actual concordance.

The conception of our own individual identity forms part of the organic idea, and receives, as we have seen, its explanation from organic occurrences.

The substantiality of our being, as vaguely hypostatized by introspection, is actually the same organic fact of reconstitution under a somewhat different aspect. Vital occurrences of any kind, sensory functions naturally included, are in all truth varying modifications of one and the same identical and indivisible organic unit. We have here a display of most manifold appearances and events, a continual outflow of most diversified specific energies. Yet the manifesting entity indiscernibly endures. It lasts undiminished and undivided amidst all its changing and perishing modes. It lavishly spends itself without suffering any substantial loss.

This fact, evident but unexplained, has constituted the great paradox in philosophical interpretation, the inevitable stumbling-block of all systems. The insoluble mystery of substantiality, the "final inexplicability" of all schools, and with us of that of Kant as well as that of Hume, of that of Hamilton as well as that of Mill, has consisted in the impossibility of conceiving how anything can remain actually and indivisibly the same under constant intrinsic changes and timely expropriations. Or, as

John Mill puts it, "How something which has ceased, or is not yet in existence, can still be in a manner present".

Duration, not as the sum total, but as the support of changes, has thus remained a philosophical perplexity, beyond the reach of sober thought. It was distinctly felt that time with its contents cannot possibly be a mere rope of sand, yet it was not understood from what perdurable and unrelinquishing influence it receives unifying consistency and relativity.

This ancient mystery is scientifically cleared by the recognition of the reconstitutive power of the organic unit as an indiscerptible totality. This assertion may be thus confidently made, because it can be witnessed without a chance of error how by redintegration the living substance preserves its identity amidst continual functional changes.

What more can be affirmed of any substance, not thus experientially given but otherwise imagined, than that amidst its varying affections it constitutes an identical, indivisible, perdurable, and self-sustaining focus of energy. The deepest philosophical discussions have always turned on these essential attributes of substantiality; but the performance of putting together a true substance out of these well-conceived properties was carried on outside any real medium; in fact, in absolute vacuity. For "indivisible simplicity" is an utterly annihilating attribute. It completely nullifies any sort of reality. It represents nothing but an inert mathematical point.

Homogeneous extension of any kind is, indeed, infinitely divisible; but this means, in reality, that no part of it—be it ever so minute—is qualitatively distinguishable from the whole. Take, on the other hand, as initial totality a chemical molecule consisting of heterogeneous elements, and all the reasoning applicable to homogeneous extension becomes at once invalid. Here, evidently, it is only the definite combination which forms the whole, constituting it a truly indivisible unit, of which no part is qualitatively identified with its totality. Any process of division would instantaneously annul the indiscerptible integrity, by dint of which it forms the definite whole given in reality; a whole consisting altogether in the specifically interdependent relations of heterogeneous elements.

It is precisely in this sense that an organism is essentially an indivisible totality. The living substance, even in its most elementary forms, constitutes a flowing chemical unit, of which all parts are interdependent and heterogeneous. A careful survey of the chemical cycle that sustains the living substance proves this plainly.¹ Observers have been hitherto misled, in the inter-

¹ Readers who have no opportunity of observing monera for themselves, but who would like visually to realise the vital conditions above indicated,

pretation of the nature of the protoplasmic individual, chiefly by the fact that any severed portion retains its vitality, continuing to perform the main functions of life. They concluded therefrom that the living substance must be made up of qualitatively equal parts; a conclusion which seemed also in perfect harmony with facts familiar through the study of inorganic nature. Nevertheless, the misinterpretation here under consideration is very transparent. If I cut a piece off an entire moner, the cut-off piece, as well as the moner itself, will reconstitute the full integrity of the type represented by the complete individual. This occurs certainly not because both parts of the divided individual consisted of equal molecules; but, on the contrary, because they formed fragments of a mutilated unit, which by complemental affinity or organic repair succeeded in reintegrating themselves. This very evident state of things becomes quite unmistakable when the two portions of a divided organism are strikingly heterogeneous, even to the naked eye, the one being, for instance, the head, the other the tail-end of the individual. If now—as it actually occurs in certain worms and other inferior animals—the head forms a new tail, and the tail a new head, it is altogether patent that the completion of the organic totality is here the controlling influence, and that it is the chemical heterogeneity, not the chemical homogeneity, of the severed parts which makes the complemental reconstitution possible.

In short, the living substance or organic individual is indivisible, because it constitutes a specific chemical unit, persistingly maintained by means of reintegration.

It is perdurable, because amidst a continual vortex of changes, it succeeds in preserving its integrity by restoration.

And, lastly, it is self-sustaining, because it has residing within its own self affinitive powers which, during functional and other destructive changes, constitute it a chemical radical with definite energies of complemental saturation.

Under this readily verifiable organic point of view, some of the oldest and most unwieldy philosophical paradoxes receive an easy and undubious solution. In the operations of vitality and organisation we find reconciled conceptions, which otherwise appeared utterly incompatible. It becomes evident, beyond suspicion, how identity and perdurability can coincide in one and the same being with change and decay; nay how such a being can even draw progressive power of unity from the perpetual flow of the perishing manifold.

will find very fair illustrations of various monera, appended to a paper contributed by the present writer to the London *St. Thomas's Hospital Reports*, 1879.

And now that we have established substantiality on a scientific basis, and have gained an insight into its organisation and working, it will be interesting to contemplate for a moment the difference presented by the spurious substantialities figuring in philosophical systems, when compared with the genuine substantiality here explained.

In the effort to account for knowledge, it was found indispensable to presuppose as foundation something identically enduring; for, even the simplest proposition presupposes identity and stability of some part of its contents. Through generalisation of this logical relation, substance came to officiate in philosophy as something which supports varying modifications without itself ever varying.

After what has been here stated, it can be seen at a glance, how hopelessly unintelligible such a conception of substantiality must ever remain. In order, logically, to insure the surmised unchangeableness of substance, metaphysicians had to postulate its simplicity, and at last also its indivisibility. Anything complex is liable to change. Everything is complex which is in any way composed, for it consists of constituent elements. Everything is complex which is extended, for it can be divided into manifold parts. Therefore only the uncomposed and the indivisible can be perdurable and incorruptible.

So much seemed necessarily implied in the conception of substantiality, and now the puzzle was intelligibly to unify the diverse, manifestly known attributes, with a simple and unextended substratum which remained ever concealed. It was clear—even to early thinkers—that the attributes which are many in number and heterogeneous in kind cannot possibly form constituent parts of a substance which is thought of as simple and indivisible. Consequently the attributes had to be conceived as affections of the substance. But how? At times the conception of substantiality appeared to fit best the enduring existence which seems to support all external changes. The state of material subsistence implied a substantial substratum of some sort. There was here, clearly, something unperishing, underlying the perishing modifications. But it was hard to understand how composite and divisible things could in any way inhere in something whose unchangeable persistence involved uncompromising simplicity and indivisibility. Besides the substantiality supporting material attributes was not itself a perceptible existence, and had therefore to be conceived as a purely intelligible entity; an entity which could only be realised in thought, and never could become a sensible manifestation. Some philosophers, remaining, nevertheless, faithful to the objective view, endeavoured now to construct the universe

out of the interaction of simple and indivisible particles, which particles had, at last, however consistently to dwindle away into unextended centres, manifesting their existence merely through irradiation of energy. To others it appeared that thought, as such, possessed the closest affinity to substantial being. The perdurable something, manifesting modifications, and never revealing itself to sense, might possibly be thought itself, all-comprehensive thought, adequately disclosing, as changing moods of its own, the apparent manifold. A certain simplicity and indivisibility belongs seemingly to the nature of thought, and generally speaking it does not lose its existence by manifesting its affections. It is still there, undiminished, to repeat its performances over and over again. But if thought is actually the substance, or—more correctly—the veritable substantial thing-in-itself, what becomes of it when no thinking is going on? Where does thought retire to in the intervals of its manifestations? It had to be admitted, on close inspection, that the substantiality of thought, for all its promise, discovers itself, likewise, as interrupted, incoherent and ephemeral. In fact, it never presents itself as a persistent whole, but always only as a succession of moments, perishing within the diffracting and dissolving medium of time. Therefore, thought, as known to us, cannot be that all-sustaining essence of being, metaphysically postulated. Moreover, in proportion as thought, in its thinking moments, widens in comprehension, it loses its hold on reality. When fully stretched, so as to become co-extensive with being in general, it represents not the totality of being, supporting the entire wealth of known affections, but only an empty shadow of being, deprived of all qualities.

The ultimate, all-comprising substratum must then be something infinitely more profound than thought, something, of which thought itself is merely one among many divers modifications. It is this utterly saturated substance, in its undisturbed simplicity and indivisibility, which is conceived as the self-sufficient One-and-All, the Absolute.

It necessarily follows therefrom, that any perturbation in the self-poised repose of this complete totality can only lower its maximum state of perfection. Modifications or affections of any kind can only become manifest through restriction of its absolute completeness. "*Determinatio est negatio*," says Spinoza rightly, echoing therein the teachings of the Cabbala, and these again the teachings of Neoplatonism. The position of anything determinate, within the uniform excellence of the all-embracing existence, must needs be a privation, a degradation, a negation of the perfection of that existence.

This, undoubtedly, is the genuine logical outcome of the

spurious notion of substantiality which governs transcendentalism. The metaphysics and ethics of that great school of philosophy will have sooner or later unswervingly to bend to this leading conception. Transcendental optimism and personalism are inconsistencies, which will have to give way to uncompromising pessimism and pantheism. To such a cosmological conception our human lives can signify ethically nothing but a struggle for complete reabsorption, for the final state of absolute quietude somehow—by some unaccountable guilt—recklessly forfeited. This view of emotional pacification through re-identification with the All-Being, long familiar to nations of the East, is becoming a wide-spread creed also in Europe.

The real contest, now pending, is not between intervening modes of thought, but between the very extremes. Either genuine Transcendentalism or genuine Naturalism. The fate of future generations depends on the decision.

III.

Our sciences have been hitherto exclusively governed by the Aggregation-hypothesis. All bodies are conceived as clusters of elements, not only when the units entering into their structure are considered homogeneous, but also when they are known to be heterogeneous. The constitution of bodily textures is mentally represented as a grouping of elements into more and more complex configurations. These constituent elements are believed to persist, as such, within the compound; indeed, to make up the same by their mere juxtaposition, and the summation of their respective energies. Forces, infringing on material products of this kind, are thought immediately and intrinsically to affect only the relative position of the constituent elements, and thereby mediately also the general equilibrium of their sundry energies. Permanent modifications of material compounds acted upon in this manner are considered to be effected by permanent displacement of their elementary particles. Diminution of mass is believed to occur only and simply through subtraction of constituent elements; increase of mass through addition of such. In every case the elements themselves are taken to be the veritable bearers of the specific properties and energies, of which the compound represents the balanced sum total.

In studying primitive forms of protoplasm, as I have already explained in this journal (*MIND* XIX., XX), I was led to frame a very different conception of the intimate constitution of living structure. In this instance, at least, the compound as such, *i.e.*, the balanced totality of the product, is very evidently the

controlling power; a unitary power, to which all elementary energies are completely subservient. The constituent elements, that enter into the composition, receive their relative position and influence from the specific constitution of the whole. They form integrant parts of an indiscerptible unit, not constituent parts of a divisible aggregate. Infringing forces do not merely displace elements, but break up the integrity of the whole. There occurs not simply mechanical shifting, but chemical ruption. And the disturbed equilibrium is not restored by mechanical readjustment of parts; but is effected by complementary reconstitution of the chemical totality. Permanent modifications of such a unit cannot possibly take place through permanent displacement of its elements. In violent encroachment, either the substantial unit ceases altogether to be, or it succeeds in restoring its previous integrity. Permanent modifications have to come about through a change in the mutual affinities of the elements, the modified status of saturation, evinced by the compound as a whole, becoming then the expression and index of the realised modification. When in the course of growth or development elements are added to the whole, they are not merely interposed between other elements, but go to effect a chemical change in the entire unit. There results an essentially different being by means of a modified chemistry, not only an enlarged bulk by means of a numerical increase of constituent parts.

The modes of energy displayed by the organic individual are not due to the expenditure of force newly brought to it by accruing complementary material or food, but are altogether due to the unlocking of forces contained in the saturated affinities of the chemical radical, which in any condition of functional disintegration remains the conservative and restorative core of the living substance. This permanent, self-sustaining core of life is the embodiment of all evolutionary results, and its vital manifestations are the expression of its own most specific and rigorously preserved endowments. It is this spontaneous self-preservation of the living substance amidst superficial changes, keeping intact the accumulated acquisition of ages, that composes the perdurable substratum for the display of temporal occurrences.

The organic individual appears to us as a chemical unit constantly shattered by external influences at its exposed and chemically cumulating regions; but as constantly renovated by intrinsic affinities through incorporation of complementary material. The surface of a highly developed organism presents most diversely differentiated points of contact to most diversely stimulating influences. These inlets of specific modifications all

converge towards one common centre. And to whatever depth the disturbing influences may happen to penetrate, they are always met by the spontaneously reconstituting energy of the organism as a whole.

Thus the innermost fact of organisation, or rather the culminating event of intrinsic organic reproductions, coincides with the most profound psychological occurrence. The *spontaneous* reconstitution to perfect integrity of the living organic unit, in spite of multifarious temporary encroachments and derangements, accounts for the supreme stability of pre-organised experience, for the stability of what with human predilection we are wont to call the conceptual order. And it explains also the contrast which is found to obtain between the self-evolving persistency of that order, and the evanescence of special phenomenal displays, *i.e.*, of the casually stimulated sensory configurations. It is the intrinsically and spontaneously renovated totality of our being, which is enduringly opposed as reacting medium to the successive inrush of varying sensory activities.

The logical order depends on ideal and volitional detachment of previously centralised and recognised affections from the all-comprehending unity of apperception. The phenomenal order depends, on the contrary, on the compulsory determination of specific affections, potentially inhering in more peripheral regions of the mental structure. Here, however, "determination" is by no means "negation," but very positive confirmation. It is truly confirmation of organic life and being, because the relations between the stimulated parts and the stimulating influences are naturally preconcerted. It essentially belongs to the nature of organic existence to be thus specifically roused by external powers.

Conscious states are clearly ephemeral effluences of an enduring being poised—far beyond conceptual comprehension—in the exquisitely exact and subtle balance of what symbolically reveals itself to us as vital substantiality.

So far as the resplendent gifts of vitality are concerned, we may implicitly rely on organic perpetuation; only, we must ever bear in mind that this perpetuation has to take place through the instrumentality of individuals. It, therefore, devolves upon each of us most scrupulously to concern himself, that during his period of agency the transmitted endowments of the living substance do not suffer deterioration. And, moreover, it is incumbent on us all to be striving with ambitious solicitude that our own mite, which by personal exertion we are able to contribute to life's abounding store, may not prove unworthy of lasting incorporation.

EDMUND MONTGOMERY.

III.—EFFICIENCY AS A PROXIMATE END IN MORALS.

THE goal of Evolution, as described by Mr. Herbert Spencer, is a society in which the self-preserving, race-preserving, and social activities of each individual are exercised in furtherance of the corresponding activities of all other individuals. So completely has the human organism adjusted itself to the environment, that all trace of the antagonisms, collisions, and repressions with which we are now familiar has disappeared. Every energy of the individual is put forth in a favouring medium. The discharge of function has in all cases been either raised or reduced to a normal standard; and, with this duly proportioned exercise, comes the full quantum of pleasure by which the normal discharge of function is always accompanied. The only activities, consequently, that are to be found in such a community are spontaneous ones. From one end of the gamut of human conduct to the other the note is ever struck by the same hand. Action is prompted by one motive, and by one only—the reminiscence of pleasurable sentiency in the past, accompanied by an organised assurance of the renewal of it through the same channels in the future. The *dulce* needs no longer to be mixed up with the *utile* in calculated proportion; for the *utile* and the *dulce* are one and the same thing. Duty, in short, has become synonymous with desire. Prompt obedience to his own organised appetencies secures in the case of each individual an entire satisfaction of the claims of citizenship. Such is the future of our race, as seen through the evolutionary telescope; and the picture has been sketched in outline for the purpose of bringing some of our present ethical perplexities alongside of it. The state of things in which we live is obviously embryonic and transitional. Surrounded as we are by the tangled interactions of forces whose final relation has not yet established itself, and, condemned as we often are to mere fugitive surface-trackings of subterranean purpose, we may reasonably hope to gain something if we repair with our difficulties to the stable equilibrium and the statuesque definiteness of the matured design. By way of carrying out this experiment, it will be necessary to call up one of the denizens of our ideal community from the vasty deeps of time, and hear what he has to say.

Our cross-examination of him may fittingly begin with the question which always presses to the fore in ethical inquiries, whatever starting-point be adopted. Where do you find the

basis of obligation—what is it that makes you act as you do? This question our witness will probably have difficulty in comprehending. It may well be that all conscious record of such conflict as is implied in yielding to an obligation has been organised out of him; but, as soon as he has succeeded in realising the purport of our inquiry, he will doubtless reply that no such feeling or conception as that which we speak of has any place in his own experience. We shall learn from him that he knows nothing whatever of disagreeable claims, but that the service and loyalty which he owes to the community in doing it pays itself. From the tenor of this reply it is evident that, unless philosophy has been paid off, like so many other agencies which the course of evolution has superannuated, hedonism of some kind must be the prevailing creed. We accordingly make bold to ask our imaginary interlocutor what he thinks of the respective claims of empirical and scientific hedonism. To this he promptly replies that with him they are one and the same thing. Having never encountered in his own experience any competition between special and general happiness, between the well-being of the unit and the well-being of the aggregate, he is unable to discern any distinction between the philosophic systems of which they are respectively the key-notes. By this reply another of our ethical difficulties receives a happy despatch. We now proceed to inquire what part self-sacrifice plays in the experience of our perfected descendant. Upon this we can fancy him heaving a sigh, and confessing that we have hit upon the one unhandsome feature of his condition. He replies that, though the aspiration survives universally, and in increased potency, the means of gratifying it have shrunk to the most meagre dimensions. Whilst everyone is eager to benefit his neighbour at his own expense, no one is willing to receive a benefit which appears to detract from the well-being of the bestower. Here and there, the stroke of physical calamity gives play for the exercise of self-bestowal; and such rare opportunities are scrambled for as greedily as selfish advantages are amongst ourselves. But this answer is a little perplexing. It does not carry our difficulty up to a vanishing-point, as did the results of our previous interrogatories. Alone of unsatisfied desires, the impulse towards self-sacrifice remains, to ruffle the peace of the evolutionary millenium. If we reflect a little, we shall see many valid reasons why this must be so; but it would be apart from the scope of the present paper to set them forth. Suffice it to say that the fact is not without its luminous bearing upon the standpoint which we have adopted. If self-sacrifice survives, it survives rather potentially than actually; and this circumstance at least enables us to get rid of the in-

tractable paradox that is involved in our current conceptions of a self-sacrificing hedonism. But we have another question to put to our remote friend before we let him go. We must ask him whether he gets the data of his moral code from without or from within—whether he is guided by the instinctive monitions of conscience, or by the dictates of a rational expediency. Here we may certainly expect him to reply that, as all consciousness of proclivity towards courses other than those prescribed by the welfare of the community has been effaced in him, the mental phenomena which had their *raison d'être* in resistance to that proclivity have disappeared too. By a strong effort of the historic imagination he may succeed in conjuring up the debt which he owes to conscience in the past, and in realising how victoriously it has steadied the slow march of humanity towards the goal at which he is happy enough to find himself. But, as an active controlling power, it cannot be known to him any longer. The rails which Evolution has laid down for him now lie so firmly on the sleepers, that all further lateral guidance of his course has become superfluous. Desire he knows as a motive energy, and the pleasure which comes from the satisfaction of desire as a perpetual reinforcement of that energy. With this simple exchange the dynamic circuit of each vital activity begins and ends. To the painful tension of complex volitional processes, out of which the resultant of conflicting claims gets slowly disengaged, he must be, *ex hypothesi*, an entire stranger. It may be objected here that this superannuation of conscience does not accord with the best evolutionary prevision. In Mr. Herbert Spencer's view, conscience, as representing the ascendancy of the social-self over the individual-self, so far from being superseded as the goal of Evolution is approached, tends more and more to become omnipotent. In reality, however, the distinction between these two views is merely a superficial one. Conscience has, indeed, become omnipotent, in so far as all the behests which it could conceivably enforce are universally obeyed. But, on the other hand, in so far as its conscious control has been transformed into an automatic spontaneity, it has practically received its discharge.

What state of things then has been revealed by this brief colloquy with the heir of time, to the full measure of whose felicity all our present doubts, difficulties, and struggles are contributory? Briefly this. Obligation has been evolved away, conscience has sung its *Nunc dimittis*, self-sacrifice has been transformed into a rare and coveted luxury, and empirical and scientific hedonism have become merged in a hedonistic automatism. Such is the euthanasia which, if any value is to be attached to evolutionary prophecy, awaits our present ethical

perplexities. How far such prophecy is justified by the premisses, is a question which can only be touched on here. I can merely remark in passing that the goal of Evolution lies strictly in the direction of achieved progress. Take what branches of human activity we will, we have only to draw lines joining our present standpoint with the starting-point of a remote past, in order to find them all converge irresistibly on this focus of complete social life. Assuming, then, the approximate truth of the picture, let us see what light it will cast on the ethical problems of to-day.

As a positive result, it should certainly tend to reconcile us to a tentative, incomplete, and provisional character in any system which we may adopt to meet present needs. What Ethics has to deal with is an enlacement of complex activities, undergoing a constant and accelerated transformation. Some forms of those activities, as we have seen, tend ultimately to a vanishing-point, whilst others are destined to work their way to a final and paramount ascendancy. But the evanescence of the former must ever be a hopeless source of bafflement to our efforts at formulating the scientific relations that subsist between the latter.

At the moment, moreover, as Mr. Herbert Spencer has shown, the problem is passing through a stage of maximum complexity. The social environment of the civilised man has temporarily outstripped in its development the capacity of the human organism for adaptation. The result is an arrested adjustment—an exacerbation, so to speak—of the normal conflict between duty and desire, and a consequent breakdown for a time of all guidance of pleasure and pain in the domain of morals. Such being the situation, it needs indeed an heroic faith to believe in the discovery of any permanent scientific principle that shall enable us to co-ordinate and thread our way through a mass of phenomena at once so shifting and so complex. In this shape, it is clear that our only course is to evade the problem altogether, and to provide ourselves with some working hypothesis outside of it. That we have thus to forego all hope of reaching a scientific code of morals as the result of our quest, is doubtless a very disheartening admission; and the only mitigation of the discouragement lies in the fact that a scientific method of inquiry in morals has at last been established. Under Mr. Herbert Spencer's guidance, we have come to see once for all that actions must be judged, not according to the qualities which have been read into them by external authority, or by metaphysical theory, or by sentimental prepossessions, but by the qualities which have been ascertained by observation and experience to be inherent in them. This, surely, is no

trifling success, and may in some measure console our generation for confessed failure in regard to final results. When so many wrong paths are open to us, each attended with more or less formidable dangers, it is something to have got at last on the safe track, even if we cannot yet descry anything in the shape of a goal at the end of it.

We now come to the negative conclusion which our glance at the goal of Evolution seems to force on us. It is this:—that, as we now stand, happiness special or general, cannot help us at all to a practical standard of reference for proximate ends. We shall see later on in what precise and limited sense happiness may be recognised as an ultimate end of conduct, in association with the Efficiency-principle. But, as a test of proximate ends, or as a proximate end itself, we have come to see that its disability is foredoomed. Looking again at the perfectly adjusted community of which our own is the embryo, we find that the distinction between proximate and ultimate ends has ceased to have any practical significance. If any proximate end which we can suppose a member of that community to have in view in any particular action is realised, his ultimate end—the furtherance of the complete life of the whole community—becomes *ipso facto* realised at the same time. For, by the hypothesis, all the activities of the unit contribute with unvarying and spontaneous exactitude to the welfare of the aggregate. In such a state of things, special and general happiness may be applied with equal appropriateness as a test to every end. But the conditions of the problem with us are wholly different. Not only are the proximate ends which current morality sanctions scarcely ever demonstrably related *as means* to the ultimate ends which are owned to by the various schools of Ethics, but they are often demonstrably antagonistic to them. This difficulty, however, is only another side of the fact that, owing to the imperfect adaptation of the individual constitution to its social environment, special and general happiness do not yet coincide. Make them coincident, and the difficulty vanishes. Proximate and ultimate ends then differ only in name, and the hedonistic principle has an unrestricted application. But, to anticipate this climax, and to claim for hedonism the capacity to serve as a working test for proximate ends, is to hold that the possibility of solving an equation is not affected by the number of unknown quantities involved in it. It is precisely because we see the hedonistic principle destined to govern all our ethical calculations when the present social antagonisms are got rid of, that we may pronounce it *a priori* disqualified for that service so long as the antagonisms survive. The simplicity of the future, which

comes as the result of completed adjustment, is reached by a natural and intelligible process of elimination. The simplicity which hedonistic philosophers think it possible to realise can only be arrived at by an artificial suppression, in theory, of facts which, in practice, decline to be suppressed. An artifice of this kind is, indeed, often of the highest value in mathematical investigations, where the suppressed facts can be restored and allowed for, when you come to apply abstract relations to concrete facts. But you cannot replace the suppressed facts in the hedonistic equation, because they are unknown and incommensurable quantities; and, directly you introduce them, your equation becomes hopelessly indeterminate.

A strong corroboration of this conclusion may be obtained by approaching the question from the "motive" point of view. That we have now arrived at a new point of departure in Ethics, is scarcely disputed even by those who cling most tenaciously to the old methods. Up to the present time, ethical systems have never been at a loss to furnish a rational motive for right action. But they have done this only by the aid of supernatural appeals and sanctions. Under shelter of these sanctions, they have always been able sooner or later to enlist egoism on their side; and they have held their ground by dint of backing a remote egoistic consideration against a proximate one. With the moralist of to-day it is otherwise. He, like his predecessors, is eager to find some answer to the irrepressible question: "Why must I do this and avoid that?" But, while he feels that a reply is looked for which shall pacify the egoism of the questioner, he is well aware that, from the nature of the case, it cannot be forthcoming. Nakedly stated, the question amounts to this: "What pleasures am I to get in return for the pleasures which I am asked to forego; and where is the proof of their superiority?" To reply candidly to this query, is to admit that it cannot be answered. All that we can say by way of rejoinder is that the compensations have a potential existence, but are not yet actually available as such. The reason is to be found in the fact which has already claimed our attention—that the adaptation of the human organism has lagged far in arrear of the growth in complexity of its environment. The social opportunities are here; but the corresponding subjective attributes have not yet appeared. With the development of every activity, grows the pleasure which its exercise affords. But, of the social activities of our race, we may say that for the most part they have yet scarcely put forth their leaves. Of the large fruits of social sympathy which they are destined hereafter to yield, all that we can have at present is a foretaste too thin and unsubstantial to compete successfully with the

vigorous growth of self-assertion which the age-long struggle for existence has nursed in us to such rank maturity. Could we be confronted with the goal of Evolution organised as we are, that "pure severity of perfect light" would only bewilder and repel us. The warmth and colour may be there: but it would need ages of subjective transformation before we could become endowed with the capacity to see or feel it. So long, then, as egoism goes on fighting for its own hand, and so long as the pleasures of that struggle exceed in volume and intensity the pleasures of which social sympathy can be made the vehicle, so long will it be impossible to answer the crucial question of the ethical inquirer, from the hedonistic point of view, otherwise than evasively. But this difficulty too, though it cannot be escaped from at present, seems to have an euthanasia in store for it, like the others. It has its origin in the fact that egoism and altruism are at cross purposes; and it will vanish when egoism and altruism join hands. Thus we see again that a purely hedonistic treatment of Ethics is premature, and that no scientific development of the inquiry is in the least likely to render it applicable.

Now, let us take careful note of the bearings of the situation to which the above considerations have brought us. What we have been dealing with hitherto is the subjective elements that are available for the solution of our ethical problem. These have been tried in the balance and found wanting. They are seen to be incompetent to meet the demands which we have to make upon them; and their incompetency has been found not to result from a temporary, but a permanent disqualification. The happiness of which we have been treating is a resultant in sentiency of the interaction of the organism and its environment under an infinite variety of conditions. Of what those conditions are we have no scientific knowledge; nor are we for any practical purpose ever likely to have. Under these circumstances, happiness, as a working test in morals, has had to be ruled out of court. In no sense, then, are we entering on a *gratuitous* quest when we go a-field, in search of something that shall stand in place of what has failed us. The quest itself is forced upon us by the awkward but undeniable fact that we are on our beam-ends. The only thing about which we have any responsibility is the giving a wise direction to it. "He had caught a great cold," says the quaint Fuller, "if he had naught else to warm himself with than the skin of the bear not yet killed." We, too, it seems, are in danger of catching a great cold, if we wait till the hedonists have made themselves ready to protect us. Their bear is yet at large; and, what is still worse, we have found shrewd reasons for suspecting that he

has a charmed life. An ethical tabernacle, then, of some sort we must set up; and where is the type and pattern of it to be found? Though we may not, like the Hebrew architect, repair to the mount of supernaturalism for our design, the universe is not yet void of all friendly cheer. We, too, of this latter day have our Revelation; but, as has been said, it is writ in Genesis. In what has been, man learns the law of life. When baffled by the inadequacy of our subjective experiences to furnish a working test in morals, to what quarter can we have more appropriate recourse than to the objective order of events? In turning for guidance to the evolutionary forces which have given us birth, and whose image and superscription we bear in our vividest thought as well as our loftiest aspiration, we have the satisfaction of feeling that every dictate of sound and sober reason reinforces the appeal. Whatever may be claimed for man's volitional efforts in the way of future control over the development of society, it will hardly be contended that it lies within his competency to invent processes, or to change the conditions which render progress possible. In the methods with which Evolution has hitherto worked, there has been no breach of continuity, from the primal homogeneity of the nebular mist to the immeasurable heterogeneity which environs us to-day. And, if there is to be advance in the future, it will evidently be on the same lines, and under the same conditions as in the past. A choice of processes indeed nature does offer us; but it is a very narrow one. We may throw in our lot with Evolution and go forward; or we may surrender ourselves to Dissolution and go backward. No other course seems at all open.

Such are the conditions presented to us; and, from the standpoint of this paper, there is no escape from their significance and imperativeness. In view of them, we cannot justify the refusal to take a hint for our own voluntary guidance from the hands which thus stretch through nature, and from hour to hour shape us into what we are before our very eyes. It is, of course, easy to sneer at the absence of all ethical flavour, and almost of human interest, in the bare statement that progress is from the simple to the complex, and that nature is never tired of elaborating what she works at. But, to put the case so, is to jest with it. The real question is whether, having lost our ethical bearings, we should steer by the chart of Evolution, or go our own gait. If we choose the latter course, at least let us not forget the consequences, if haply we be found to fight against "that strong thing which once was chaos, and which shall be God". For such resistance, voluntary or involuntary, there is but one penalty—inevitable loss of all that Evolution has won for us.

That it promises a certain immunity from this error and its consequences, is not the least recommendation of the principle of Efficiency as applied to Ethics. When we proclaim once more under new sanctions the time-honoured precept "Whatever thine hand findeth to do, do it with all thy might," we are but surrendering an infinitesimally small sphere of voluntary activity (which apparently is ours to give up) to the sway of forces which around it are everywhere paramount. If these agencies were alien or untried—if we had any reason to dread their operation upon human destiny, reluctance would be justifiable. But so far from that being the case, we are debtors to them for everything that we are and everything that we have. In them, literally, do we live, and move, and have our being. If we cannot trust them here, it will be the first time in the history of the universe that they have failed to provide slowly for the best. Faith in Evolution, carried to this length, will, of course, be denounced as a demoralising fatalism by many who profess a lip-service to evolutionary principles as a whole. What the origin of that sentiment is, it is indeed not a little difficult to discover, unless it be that those who entertain it believe themselves to scent in Evolution, as thus presented, a transformed survival of the providential government of the world. That the cry should be raised by orthodox voluntarists, would be natural enough. From their standpoint, it would be no inappropriate exercise to give a new lease of life to the third commandment, and not to hold him guiltless who takes the name of the voluntary activities in vain. But it is indeed a strange phenomenon, that those who accept the doctrine of causation should thus take fright at its inevitable consequences. Evolutionary science is merely guilty of applying that doctrine to the interpretation of events. It neither takes from it, nor adds to it. My action to-day depends on my will, and my will depends on my character. In whatever degree this statement amounts to an apotheosis of the forces that have built up my character, it is clearly causation, and not Evolution, that is answerable for that effect.

Having got thus far, we may naturally expect to be asked exactly how we stand in regard to happiness. Have we deliberately turned our backs upon it—or are we waiting to take it up again at a further stage of our inquiry? Neither the one nor the other. We have the satisfaction of seeing it step up alongside of us, in the shape of what Aristotle calls an ἐπιτηγνόμενον τέλος—an end that supervenes. We have ceased, it is true, to trouble ourselves directly about its presence, and have left it very much to shift for itself. Perhaps, however, we shall find that this neglect of ours has been altogether a wholesome one.

That we have indirectly provided for its welfare in our advocacy of the Efficiency-principle, is at least highly probable. Little as we know about the climatic conditions which suit happiness, we may safely say that industry, self-respect, and mastery in the tasks allotted to us would be hopeful prescriptions for the attainment of it, even if that were the direct end which we had in view. So far, however, as our conscious efforts are concerned, it is not an end with us at all. Now such a result as this is felt at once to contradict the habitual tenor of our experience; and hence arises a natural scepticism about it. If we want to reap, we sow with the deliberate aim of reaping; nor do we expect to gather, where the strawing has not been done with calculated prevision. To this rule, however, there are momentous exceptions; and, if we look for a moment at the traits which happiness displays in its ordinary manifestations, we shall see little reason to wonder at the seeming magnanimity with which it condones our neglect, and credits us with an allegiance which we have never rendered. As a matter of practical experience, it is found to be an unvarying characteristic of this coy attribute of our sentience, that it will only be wooed in a roundabout way. To conscious and calculating suitors, happiness has a provoking trick of answering "not at home". The law is, as has been pithily said, that to get it we must forget it. A paradoxical precept truly, and one of which we are not likely to find the key, until we come to realise what a pitifully subordinate part is played by our conscious activities in the furnishing of our lives. Of other fruits of existence equally precious, the same thing may be said. They come to us by the way, without any direct quest on our part. Goethe,¹ evidently, thought this of wisdom; and his famous paradox might have a widely extended application. Those, however, who entertain insurmountable misgivings as to surrendering the direct tutelage of happiness, may at least take heart from the reflection that their *protégé* would be left in good hands. It is precisely because happiness has ever been the special ward of Evolution, that our conscious solicitude about it is such a work of supererogation. If Evolution has not pampered and spoilt her favourite, she has at least provided for its healthy and vigorous growth. When we take into view the higher planes of human experience, it is not perhaps so easy to establish this fact against pessimistic objectors. But, in the lower domains of sentience, it can admit of no dispute. The civilised world of

¹ Die hohe kraft der Wissenschaft,
Der ganzen Welt verborgen;
Und, wer nicht denkt,
Dem wird sie geschenkt.
Er hat sie ohne Sorgen.—*Faust*, First Part.

to-day is one vast manufactory of anodynes. The supply, it is true, lags ever in arrear of the demand; but, after all, it is steadily, if slowly, gaining on it. Though the pessimist may contend that, in spite of progress, the sum-total of pleasurable sentience in civilised communities has not been added to, he will admit as readily as any one that evolution has worked unfalteringly in the direction of mitigating physical pain and contributing to physical comfort. His contention is that, for every lower pain got rid of, we have some subtle psychical equivalent put in its place. But, if this contention could really be established, it would be as fatal to the hedonistic as to the strictly evolutionary programme.

In regard to what has been said about the inaccessibility of the happiness-principle, it will perhaps be objected that a distinction ought to be drawn between happiness and the conditions which notoriously render happiness possible. But what would such a distinction avail us? It is precisely in regard to the agencies contributory to happiness that we are so entirely without scientific guidance. How are they to be recognised? How are they to be classified? How are they to be co-ordinated to the infinite variety of subjective requirement? To these questions the most thorough-going hedonist will confess that he is not yet prepared with any satisfactory reply. Of course, he will add that the mists are beginning to clear, that science is hurrying to his rescue, and that the formulation of a scientific hedonism is only a question of time. The latter is doubtless a safe way of putting it; but a postponement for decades is one thing, a postponement for æons is another. The real question is of his present predicament, and of his immediate prospects. What is here argued is that, with the equipment now at his disposal, his jaunty claim to superannuate Evolution and to improve upon her pace is a trifle premature. The truth seems to be, in regard to this matter, that the vivid glimpse which modern science has given us of hedonistic possibilities has turned our heads. For the moment, we are intoxicated with the dream of a transfigured existence, and hasten to credit ourselves with being the authors of a spectacle of which we have been simply the discoverers. In this mood, it is a short step to spring at the reins, and try to drive the car ourselves. Such, from the point of view here adopted, is the tone and attitude of much of the hedonism which, emanating at first from a quasi-scientific source, and becoming degraded as well as popularised in its descent, is slowly leavening all classes of society. It is true that the wreck of a solar system is not at stake in the charioteeing pretensions of these our modern Phaethons. But, for all that, they can wreck much. Nothing, I believe, is more to be dreaded than that modern

society should have its gaze fascinated by these phantom goals of pleasure, and at the same time should carry away the fatal notion that science guarantees it against the penalties which attach to the pursuit of them. In that way, the stream of Dissolution may very easily be turned on, and we may slip down the ladder of Evolution far more rapidly than we mounted it.

Having said thus much by way of logical justification for erecting the principle of Efficiency into a proximate ethical standard, let us see how far it is likely to justify itself by its salutary effects upon society as it is. Now, the most superficial glance at modern industrialism suffices to show us that it has a deadly worm gnawing at its core. There is no attribute more generally characteristic of the handicraftsman of to-day than that he has neither pleasure nor pride in his work. What he appears to aim at is the minimum amount of labour and the maximum amount of inefficiency that is compatible with the due receipt of his wages. The chief labour-organisations have not scrupled, indeed, to take this "bad-workmanship principle" ostentatiously under their wing. With what cynical audacity it is propounded and acted on by all classes of modern working men, can be realised only by those whose occupation has brought them into close contact with the productive industry of these times. It would certainly be a bold thing to say that this deplorable state of things is wholly due to the currency of crude hedonistic conceptions amongst the working class. But may it not be safely said that this has had a great deal to do with it? The notion that the whole duty of man is summed up in the pursuit of the agreeable and the avoidance of the disagreeable is the ethical ground-tone that pervades that stratum of society. Of course, it is easy to answer that this notion rests on a fundamental and *remediable* misconception of the conditions under which happiness is attainable, and that, to turn labour to proper account for hedonistic purposes, we must experimentally embody the idea of the poet:

Child of our woe, yet parent of our ease,
The toil which teaches pleasure's self to please.

But that is not the real point at issue. What we are concerned with is the fatal fact that labour in these modern days has lost its dignity in the eyes of the labourer. This is the theme that justly inspires the jeremiads of our modern seers, of Carlyle from the ethical point of view, of Ruskin from the artistic point of view. The mercenariness, the insincerity, the slovenliness of modern labour is ever the burden of their lament: to purify a social atmosphere thus tainted, the one thing needful is an ethical gospel which shall restore to labour its dignity, and to the labourer his self-respect. When we are able to inculcate, with the cogency and authority of a rational

conviction, that it is the primary duty of every citizen to make the quality of his work the best that the circumstances of the case admit of, we have brought a new social and industrial era already within ken. To make the workman feel that a moral responsibility is inseparably associated with his work and the manner of doing it, and that what he should most have to fear if he fails is, not the eye of the master, but the loss of his own self-respect—to inspire him with a principle of action like this, is to render him in the most salutary sense a law to himself, and to sow the seeds of the best kind of citizenship in him. It must not, of course, be supposed that, when the social serviceableness of the principle of Efficiency, if adopted as a moral standard, is thus illustrated, any attempt is made to treat consequences as a test of truth. Be its practical utility what it may, it must stand or fall as a philosophical tenet by the verdict which logic has to pronounce upon it. But, having once decided that it has logically established itself, we may legitimately reinforce our conclusion by contemplating its admirable competency to deal with the social problems to which it is applied. Having adopted it as a provisional expedient, rendered necessary by the hopeless state of flux to which all hedonistic data are for the present evolutionary era condemned, we here find that one of the special and characteristic ills of our time is that for which it supplies an antidote.

It is true that individual efficiency is to a large extent secured by the order of things under which we live. That fact, however, affords no reason whatever for refusing to adopt it as an ethical end. Nature is ever inviting man to take short cuts to the ends which she sets before him, and to forestall, for his own happiness and advantage, the rough methods which she always keeps in reserve, and which she is sure to bring to bear upon him in the last resort. So it is here. We may leave the principle of Efficiency to be enforced by the struggle for existence, or we may consciously anticipate the results of that struggle, and become efficient beforehand. Which of the two processes is the better for ourselves, even from the hedonistic point of view, can admit of little question. Beneficent in many ways as is the agency of industrial competition, from the moral point of view it has its ugly side. If granted a too exclusive possession of our regard, it may easily become the parent of a most narrow and unsocial egoism. But we largely disable it for this mischief when we do its proper work for it in advance. In an address of a working man, delivered a short time ago to an assembly of his fellows, the struggle-for-existence point of view and its bearing upon efficiency is set forth with great force and pertinency.

"Competition," says the speaker, "is not half so much in the masters' hands as it is in yours. I defy any large manufacturer—and I have been foreman, journeyman and apprentice among you, and know the little ins and outs—I defy any masters or any organisation of managers and foremen, even if there were a foreman to every three of you, to make sure that honest work is being done. It depends upon you that the details of the work are honestly and well done; and it depends upon you, if the competition comes to be severe, whether or not we are to give up and say 'We are done: the old country is worn out'. I don't believe it; but it depends upon you. You have the opportunity of seeing work that no foreman can see; and, if you smother over that, and pass a bad or a slovenly job, depend upon it that competition will bring it back to you sooner or later tenfold. I adjure you as an old friend, who has the working classes as much at heart as any man in the world—I adjure you with all my heart and all earnestness, never pass a bad piece of work to your knowledge, and use your exertions to find a bad piece of work out."

Now, as an enforcement of the competition point of view, this appeal leaves nothing to be desired. It is as terse and forcible as it could be made. But who does not feel that an added force would have been given to the speaker's words if he had been able to tell his hearers that efficiency was a thing to be aimed at *per se*, and that there is no other source of a self-complacency that will stand wear? The motive appealed to is thus fundamentally changed; but the change is all in the right direction. The fear of injury is replaced by the hope of manly self-approval; and the workman is taught, not so much to defy his rivals, as to raise himself to a higher level.

In taking leave of this practical aspect of the Efficiency-principle, we may profitably call to mind an embodiment of it which has been shaped by a master-hand. That the gifted author of *Middlemarch* would have gone the length of vindicating a scientific authority for that view of duty which has been here set forth, would doubtless be a rash inference. But, certain it is that none of her characters bears trace of being drawn more lovingly or more sympathetically than Caleb Garth; and Caleb Garth is the principle of Efficiency clothed in flesh and blood. "His virtual divinities," says the author, "were good practical schemes, accurate work, and the faithful completion of undertakings; his prince of darkness was a slack workman." And it is well worth noting that, from the hedonistic standpoint, it does not fare so badly in the story with this imaginary champion of "the new morality". Of happiness, as a conscious end either for himself or others, he has never a thought. And yet, whichever way we look at it, his life is a true success. The unworldly simplicity, which forms the unconscious background of his character, does indeed sometimes bring him into formidable scrapes. But, in spite of these drawbacks, a liberal measure of personal happiness falls to his own share, whilst from first to last he is an

overflowing fountain of happiness to his surroundings. And this unstinted potency of beneficence in the man is felt instinctively by the reader to have some deep root. It is, evidently, not the outcome of any casual conflux of amiable qualities in him; but rather the fruit of a wide-reaching ethical principle, which gives shape and direction to his whole life. When we view his character in connexion with our present subject, the secret of its spell stands at once revealed. A man in that attitude has the universe at his back and a cornucopia within his reach.

It will be observed that in the foregoing pages use has been made of Mr. Herbert Spencer as an evolutionary seer, to establish a conclusion which he would certainly repudiate, and which he would probably condemn. Of all constructive philosophers, however, none would have less right than he to protest if alien superstructures are built upon his own foundation. Though conducted throughout on hedonistic lines, his last work amounts in substance to a reluctant and almost desponding proclamation that the hedonistic highroad—to borrow the expressive phrase of Emerson—ends in a squirrel-track and runs up a tree. The most sympathetic perusal of the *Data of Ethics* fails to distil from it any ethical *modus vivendi* by which present needs can be met. So that, in propounding the principle of Efficiency as the basis of what he called "the new morality," the late Professor Clifford did but anticipate a break-down of competing systems more complete and conclusive than he lived to see realised. To reinforce his position from a slightly different standpoint has been the object of this paper; and, in a situation so urgent as that with which we are now confronted, it will not be disputed that the importance of thoroughly sifting the pretensions of that doctrine can hardly be overrated.

To those who accept Evolution as a scientific account of the genesis of human society, there ought to appear nothing incoherent or incongruous in the proposal to incorporate a part of the unwritten code of nature into our ethical philosophy. Those who dispute the adequacy of the Evolution-hypothesis will, of course, make short work of any system that is based on it. A remark, however, may appropriately be added on the stock argument by which it is attempted to show that Evolution can never furnish the basis of any philosophy at all. We are constantly told that the system itself does not hang together, and that between physical and social evolution there is a breach of continuity which cannot be bridged over. The emphasis and frequency with which this objection is urged contrasts strangely with its superficiality. It is, of course, true that the struggle

for existence, which in the earlier stages of organic evolution reigns supreme, with the commencement of social evolution becomes steadily mitigated and transformed. It is equally true that social evolution, which starts with the paramount ascendancy of the tribal self, passes on to the liberation of the individual self; and, having accomplished this, proceeds to restore to the social self a final but transfigured masterdom. But these seemingly discontinuous phases are of the accidents of Evolution, not of its substance. The essence of Evolution is integration, with corresponding adjustment. So regarded, its march is strictly rectilinear and continuous: and it is of this continuous and all pervading element in it that the principle of Efficiency is the moral counterpart and corollary.

JOHN T. PUNNETT.

IV.—"MIND-STUFF" AND REALITY.¹

PROF. CLIFFORD'S Essay "On the Nature of Things-in-Themselves" (MIND IX.) was one of the most ingenious of his speculative efforts. No doubt, had he lived, he would have done much to give his thought a more satisfactory shape. But what he did makes him one of the plainest expositors of a doctrine that, in various forms, is now held by many among modern thinkers. "Mind-stuff," as the word shows, is to be a substance combining physical and psychical properties. In assuming the existence of such a substance, we are to satisfy the demands of philosophy both as to the explanation of external phenomena and as to the problems of mental phenomena. The effort is, therefore, in its nature philosophical. Whether the resulting doctrine is tenable at all we shall see; but no one can doubt the value for higher thought of the discussion of such questions as Prof. Clifford in his brilliant and earnest way here suggested.

In MIND XXI., 116, Mr. F. W. Frankland has sought to give the doctrine of Mind-stuff a more complete development. Consistency has often been fatal to ingenious doctrines, just as it has always been useful to thought in general; and more than one reader must have felt his dissatisfaction with mind-stuff not a little increased while reading Mr. Frankland's fearless statement of consequences. There is something fundamentally unintelligible in the assertion that "motion is mind-stuff," that

¹ This article, sent from Berkeley in California, was written before the appearance of Mr. Gurney's article on the same subject, in MIND XXII.—Ed.

volume of feeling is mass, and intensity of feeling velocity"; and even of conjectures (for Mr. Frankland throws out the assertion merely as a conjecture) we demand intelligibility. Nor have the brief and pointed criticisms that Mr. Shadworth Hodgson¹ made upon the philosophical consequences of Prof. Clifford's theory, as yet been answered. And Wundt, whose statement of a theory substantially the same as his own was cited by Prof. Clifford, has expressly disclaimed any assumption that his view is more than a hypothetical completion of the ordinary scientific *Substanzbegriff*.² Evidently then, if this Mind-stuff theory is to be of any permanent importance for philosophic thought, the whole matter must be subjected to a severe critical examination. This theory is as yet only in swaddling clothes. We have still to decide whether the child ought to be brought up, or whether, for the good of the state, it must be exposed on the mountains.

The doctrine is new, but the effort is indeed old, and hundreds of volumes have been filled with attempts to prove that nature is in some way full of soul. We can judge of all such discussions only by the use of the method of critical analysis, joined, as such analysis must be, with a constant appeal to inner and outer experience.

I.

"The elementary feeling is a Thing-in-itself," says Clifford. But what is the elementary feeling apart from a consciousness into which it enters? As we go back, answers Clifford, along the line of the human pedigree, the organisms that we encounter become simpler and simpler, and so, as we suppose, the complexity of consciousness diminishes also. But where are we to say that consciousness ceases? The continuity of the series forbids us to say that consciousness ceases anywhere. "As the line of ascent is unbroken, and must end at last in inorganic

¹ *Philosophy of Reflection*, I, 174, ff.: "I am not here concerned," says Mr. Hodgson, "with the theory of Mind-stuff. . . . My wonder is to find any one ambitious of having Things-in-themselves as an item in his philosophical system."

² Wundt's words are (*Phys. Psychol.* 2te Aufl. Bd. II., pp. 459, 460):—"Es versteht sich aber von selbst dass der so erweiterte Substanzbegriff" (that is, the concept of material substance as at the same time possessed of psychical attributes) "ebenso hypothetisch ist wie der ursprüngliche, und dass er überdies so zu sagen von bloss transitorischem Gebrauche sein kann". Of the new as of the old notion we know that it is our own product, not a revelation of reality. "Hier weist überdies schon die nicht zu umgehende Nöthigung, das Verhältniss des Physischen zu dem Psychischen mit dem des Aeusseren und Inneren in Parallele zu bringen, auf einen solch' transitorischen, für das wirkliche Sein der Dinge nicht massgebenden Charakter unserer hypothetischen Begriffe hin." For this idea of "outer and inner" is of but figurative application here.

matter, we have no choice but to admit that every motion of matter is simultaneous with some ejective fact or event which might be part of a consciousness." And so the ejective-elements exist independently and form the great world of mind-stuff, which is itself the reality that we perceive as matter. Furthermore, we have the proportion existing: As cerebral image (physical) to physical object, so is perception to thing-in-itself. Whence it follows that the thing must be of like nature with the perception. The material universe is, therefore, an imperfect picture in a man's mind of the real universe of mind-stuff. So far Clifford; let us now examine the notions herein involved.

And first, one must speak of a certain vague use of terms that disfigures many of the arguments on this whole question, and that we must avoid in discussing Prof. Clifford's doctrine. To illustrate the union of physical and psychical, which this doctrine, together with other allied doctrines, seeks to prove as a fact of nature, one sometimes sees used the figure of a "two-sided reality". One reads of the "two aspects," neural and psychical, physiological and psychological, objective and subjective, of certain phenomena. Especially, of course, are the facts of physiological psychology thus interpreted. Mr. Lewes was a great sinner in this respect, and Mr. Shadworth Hodgson's criticism of his language¹ seems to the present writer very satisfactory. But Mr. Lewes was not the only sinner. Mr. Bain has spoken² of the one substance with two faces, which we must study, "not confounding the persons nor dividing the substance"; as if the language of the Athanasian Creed were just the form of expression to throw light on a question of modern philosophy. Wundt, notwithstanding his own above quoted remark, has used³ words that are open to a similar charge of vagueness, declaring "dass was wir Seele nennen das innere Sein der nämlichen Einheit ist, die wir äusserlich als den zu ihr gehörigen Leib anschauen". And, in fact, such phrases are as common as they are hard to understand. As a kind of shorthand expression for a whole system, such a phrase may, indeed, be justified. But if one intends it not merely as shorthand, but as the adequate formulation of a philosophic truth, then we must reply that the formula is no better than the *virtus dormitiva* of opium, or than the "abhorrence of a vacuum" as an explanation of the ascent of water in pumps. It is another case of our willingness to cheat ourselves with words.

This criticism may seem presumptuous; but it will not be

¹ *Philosophy of Reflection*, II. 40, ff.

² *Mind and Body*, p. 196.

³ *Physiologische Psychologie*, 2te Aufl., II., 463.

hard to justify our assertion. The point is one of the greatest importance for all the following argument. This expression, "one reality with two sides, or faces, or aspects," is of course a figure. One thinks of the shield in the fable, or of a coin, or of a mountain. These things are the prototypes of this reality. Now what is, literally speaking, the reality in question? A nervous process is a coexistent, a necessary or an indispensable coexistent of a certain mental fact, *e.g.*, a sensation. Now this ultimate mystery is supposed to be philosophically explained by saying that the two facts are the inner and outer aspects of the same reality. Is this any explanation? We get back our fact, plus a worn out metaphor. Are we aided? "Inner and outer," what is the sense of these words? Is the sensation inside the neural process? "One reality"; but what is the one reality? Is it the physical process? No, that would be materialism. Is it the sensation? No, whoso thus believed would be one of those subjective idealists whom nervous physiology is there to refute. Is the reality then simply the sum of the two phenomena, the fact that they coexist? Then why talk of a mysterious one "substance," that must not be "divided". "*Das ist das Hexen-Einmaleins.*" What we mean by material, what by mental phenomena, remains indeed a problem for further research. But how we are brought in the least nearer to an understanding of either problem by the introduction of this imposing "monistic" fiction, is hard to see. Pains we know, and motions we know, but what is this third Unknown, whereof a group of motions is the outer, and a pain the inner face? The old story is repeated; here as usual in metaphysical abstractions we find simply a new puzzle introduced to solve an old one. Nerve-activities were mysterious things, and their connexion with the mind likewise mysterious; hence in previous generations men heard of useful "animal spirits," which were responsible for the whole task of conveying impressions to the mind. One fiction is now passed, but the other cometh quickly; and the mental world is now to be glued fast to the physical by means of a patent preparation called a Substance. Have we never heard of Substance before in philosophy that we should all run to listen to the first proclaimer of a new one?

But then, it will be said, the conception of the one sentient and moving substance is after all but a brief expression for the physical fact of the union of the two sets of phenomena. No harm can come from a mere figure, from a fiction of language. No harm to be sure, we reply, if one is conscious of the fiction when one uses the words. But most seem to be unconscious of the fiction, and yet are highly pleased with the words. Not

merely to sum up scientific facts, but dogmatically to make insignificant assertions stand in place of facts, is the language that we have criticised often used. When Schopenhauer declared the Will to be "die Causalität von innen gesehen," he imagined that he had stated a very profound truth; and his "insight" was employed to make all natural laws the expression of Will. We may or may not accept his theory; but we shall not admit that the clever metaphor had anything to do with the proof thereof.

But still it may be maintained that we all distinguish mental and physical facts, that we commonly, and without fear of confusion, call them respectively internal and external facts, and that speaking of them as phenomena of one substance or reality is of use in pointing out their causal connexion. But in fact, as we must answer, this theory of the double-faced substance is founded on the denial of the existence of causal sequence between the physical phenomena on the one hand and the accompanying feeling on the other. This theory is framed especially to lay stress on the fact that physical phenomena as such cause physical, mental as such cause mental phenomena, or that at the utmost mental phenomena affect the physical, but not the reverse. The theory wishes to express the fact of the necessary coexistence of the two groups of phenomena, as distinguished from any influx that might be supposed to take place from the world of matter into the correlate world of consciousness. This fact, however, is, as we have seen, best expressed without any use of the terms of this ambiguous and dangerous theory.

The theory of Mind-stuff has therefore no magic to change one whit the nature of the problems of matter and mind. These problems may be better stated by the theory, but they cannot thereby be solved. For prove to us that the connexion between mental and physical phenomena extends throughout the whole universe, and that every motion of every atom is accompanied by some rudimentary psychical event; still you have not in the least altered our philosophical theory of things, nor thrown any light on the nature of the union of the two sets of phenomena. To say, "every atom is possessed of a little fragment of mind-stuff," tells us nothing about the nature either of the atom or of the mind-stuff. To say, "but the atom is the mind-stuff," or "what outwardly exhibits itself as a material atom inwardly shows itself as an elementary mind-atom"—this is to use the above condemned artifice of veiling a problem under a form of words. The *what* that thus is two entirely distinct things at once, is an indefinable and incomprehensible product of misused language. There is, by hypothesis a mental, and

there is also a physical fact. These are coexistent, and necessarily so. The Mind-stuff theory tells us nothing new about the facts or about their correspondence. It lumps together two sets of facts, and calls the aggregate by a new name.

II.

Yet perhaps it may be objected that the Mind-stuff theory does not so much assert the existence of an unknown something behind the two distinct sets of phenomena, as the actual identity of so-called physical phenomena with mental phenomena. An adherent of the doctrine in question might state his case thus:—"No mere artifice of language is intended. The theory means simply this, that there are, properly speaking, no real material phenomena at all. There are only mental phenomena, more or less complex. One does not speak of any substance apart from the phenomena. One means only that all real facts are 'ejective' facts. Just as we admit that there are minds behind certain material phenomena, *i.e.*, behind the voluntary motions of men and of higher animals, so the theory wants us to admit mental facts as the ultimate explanations of all material phenomena."

This statement seems more plausible than the last. I have thoughts and express these in word or in act. My neighbour's thoughts are affected by mine, but not by the direct knowledge of what is in my mind. To my neighbour my thought is known only through its physical expression. This is to him the phenomenon, of which the ejective truth is my mental state. So then with the atom. Its little fragment of mental life is expressed to the little fragment of mental life next it, to its neighbour atom, in the form of such a modification as collision or as attraction. But impenetrability is not the fundamental property of the atom. Impenetrability is only the atom's way of showing its own little mind, just as my way of showing my thought is by outward resistance to aggression, or by some other bodily act.

But then, if we are to be thus thorough-going, and to admit none but mental facts as ultimately real, can we explain the phenomena of the physical universe? Not, as will be seen, on the assumptions made by the Mind-stuff theory. That all existence is for consciousness the present writer fully believes. But this philosophical doctrine is not identical with the Mind-stuff hypothesis. For the believer in mind-stuff, existence and consciousness are by no means coincident. Mind-stuff, in its ultimate fragments, is wholly destitute of the complication the unity and the activity that constitute conscious existence. The

mind-stuff atom is of psychical nature, but unconscious; it is not, like Hartmann's Unconscious, already intelligent, but it is not necessarily even a part of a consciousness. Therefore in arguing against this anomalous product of modern ingenuity one is not arguing against Idealism or Phenomenism as properly understood. Mental facts are the ultimate reality; but not such mental facts as these of the Mind-stuff theory.

But let us examine the consequences of the theory. There are no realities except fragments of mind-stuff. These are joined in complex masses to form minds; or again are more simply combined to produce inorganic phenomena. All grades of complexity exist, from the elementary bodies up to man's brain. Together these bits of mind-stuff are responsible for the whole world of phenomena.

But pause. What is left of the world of phenomena? There are only fragments of mind-stuff, and these are ultimate and simple. We must think them after the analogy of our own simplest mental states, *viz.*, of our sensations. They are far simpler than even these, and, no doubt, far less intense; but they are analogous. What follows?

First, there is no real space remaining. Space-relations are unreal and illusive. For if there are only sensations, or ultimate simple psychical phenomena analogous in nature to our simplest sensations, only fainter and simpler, then there is no possible meaning in saying that there is any space. There are no doubt in many of our simpler states of consciousness, in all the data of at least two of our developed senses, space-elements constantly present. But in these cases there is existent a complex consciousness. Space-knowledge is a part of this complex, inconceivable without it. Ultimate mind-elements, conceived after the analogy of our simplest sensations, have a time-element, and an intensity as well as a quality. But of a space-element in each, and of space-relations such as distance and direction among these elements, who shall venture to speak? What meaning would there be in Euclid's axioms if the world were composed wholly of elementary sensations not grouped into conscious minds? Are pains in themselves above or below other pains? Is an emotion of love or of hate distant an inch or a mile from other emotions? When I listen to a tragedy or read a treatise on metaphysics, are my thoughts in spatial relations to one another? And even when sensations are for us grouped into wholes in space, as the sensations of touch that come to me from this table are grouped, do we properly say that the elementary sensations apart from the consciousness that groups them are already in space? We shall be certain then that at least some mind-stuff is non-spatial. And where then

shall we stop? Plainly space-relations will belong not to the noumenal mind-stuff atoms, but to the fashion of perceiving determined by the nature of consciousness. I then perceive the non-spatial mind-stuff, and perceiving give it the space-form?

But I, too, am a mass of mind-stuff. And this brings us to the second consequence of the doctrine. One mass of mind-stuff perceives other masses. Or again, since the law of interaction is supposed to apply to inorganic physical phenomena as well as to the higher phenomena, every atom of mind-stuff affects other atoms. But how is this conceivable? When I perceive a mountain, there is an alteration in the mind-stuff of which I consist. New stuff is added, or old is removed, or the disposition of what is present is changed. But how? The ultimate fact for my consciousness is: The mass of mind-stuff that constitutes me is altered. How can this change be effected by any change in other mind-stuff? The answer of course will be: The alteration of one fragment or mass of mind-stuff through the action of another fragment or mass is an ultimate and mysterious fact, whose laws are to be studied, but whose reason is unknown. But still one asks, in what way is the change to be conceived? And the answer is not easy. Suppose, first, that the ultimate atoms of mind-stuff are absolutely unchangeable in nature, and incapable of destruction or of increase in number. So to think these atoms, would be to use the analogy of the more rigid atomic theories of the physical world. Assuming this view for a moment, let us consider the result. The mind-stuff atoms cannot be destroyed or created or changed in nature. Hence only their grouping can be altered. Some change, rhythmic or otherwise, in the grouping of the mind-stuff atoms in the thing I see, produces an alteration in the grouping of the mind-stuff atoms in me, or perhaps takes from or adds to my stock of mind-stuff atoms. The result is that change in me which is called a perception of the object. But how or in what sense is a new grouping of mind-stuff atoms conceivable? A change of grouping is conceivable if the things grouped are outside of one another in space. Their direction and distance may be altered in an infinite number of ways. But here is the mind-stuff atom *a*, and the other atom *b*. These atoms are, it is to be remembered, mental facts and nothing more. They are "ejects". How can these change their relation to one another, *i.e.*, their grouping? The groups *ab* and *ba* could be formed, *a* might be conceived above or below *b*, distant an inch or a league from *b*, or what else you will, so long as *a* and *b* were things in space. But *a* and *b* are here not things in space. What can distance or precedence or above or below mean, when applied to relations between two independent mental facts?

A very easy question, some one may reply. If to any consciousness *a* first is present and then *b*, a very different total impression may be made from the impression produced by the appearance first of *b* and then of *a*. Pour water into a previously-prepared glass, and the result is easily distinguished from the result of first pouring the water and then preparing the glass. No doubt; but see the admission thus made. Given the consciousness in which *a* and *b* are grouped, given the one reflective judge, before which *a* and *b* appear, and then the grouping in time of *a* and *b* may be important. But that developed consciousness is, for the Mind-stuff theory, not yet deduced. Here is a complex of mind-atoms. What can be meant by any grouping of them whatsoever, and *à fortiori* what can be meant by that complex grouping known as a consciousness? This is the very question at issue. Each mind-atom for itself exists in time, and so, if you choose, co-exists with all the others. Thus there is a grand aggregation of all. But where is any union into groups? Where is any meaning for the words "alteration of grouping"? How is, then, any law conceivable by which one group is connected with any other? How can a change of one group affect any other?

It is plain all this talk about the grouping of mind-atoms is nothing but a barren figure of speech. We are used to space-relations, and to laws connecting one group of material particles with other groups. Now, however, for the sake of solving certain problems, we have determined to assume once for all that in reality there exist, not material particles, but ultimate feelings or mind-atoms, fragments that might be joined into a complete consciousness, but that may exist apart therefrom. Now, when from these atoms we try once more to build our world, we are debarred from using the ideas derived solely from the experience of matter and of space. These mind-atoms are not hard and mobile, they are not at various distances from one another, one is neither above nor below another, nor in any other like relation. Such words applied to mental phenomena are simply nonsense. Our first problem is this: to find ways of conceiving how these ultimate mind-atoms may be so related among themselves as to produce and explain the phenomena observed in the appearances of material things. Our answer to the problem is thus far wanting. And wanting, we affirm, the answer must remain. For the only groupings of such ultimate unchangeable mental facts conceivable to us are groupings in and for a consciousness. Without a consciousness mere sensations can never be definitely grouped. Given a "looking before and after," a comparing, discerning activity, a reflection, and then different groupings of mental facts may be conceived.

Even then, however, the grouping would imply something besides a mere dead co-existence of ultimate atoms of mind. The grouping would imply attention, and so change of intensity, reproduction, temporary or total destruction of the mind-elements concerned; and all this, if you suppose only ultimate co-existent atoms, is not conceivable.

But one may change ground and say that the mind-atoms are not wholly unchangeable. In fact, if one does not do this, it is indeed hard to see how even such a material phenomenon as the collision of two atoms is to be interpreted into the language of mind-stuff. For physics there is nothing inconceivable in the phenomena of collision, granted only the conceivability of matter and of motion. But for the Mind-stuff doctrine the case is different. What motion may mean, or what, if "motion is mind-stuff," the matter over and above the motion may mean; what a bit of mind-stuff may experience when its velocity changes, when its direction of motion changes, when another bit of mind-stuff is in its path (think of the "path" of a sensation);—all these questions, puzzling enough in themselves, would be in all seeming absolutely beyond solution, if one may not assume some continual alteration in intensity or in quality in the ultimate mind-atom itself. Suppose, then, that the world consists of fragments of mind-stuff whereof each one is endowed with a capacity for the change, within certain limits, of its own intensity and quality. Suppose, also, that by some pre-established harmony (other source is hardly well conceivable) the alterations in one atom are uniformly connected with alterations in other mind-atoms, according to fixed laws. Then, indeed, the world of mechanism, of dead matter and motion, could be in a manner conceived. That is, one could understand how to each simple phenomenal mechanical effect, *e.g.*, a blow or a push, there corresponded some noumenal alteration in the mind-stuff atoms. Even the law of the conservation of energy would be capable of expression in terms of such assumed elements. Since velocity and mass would be interpreted in terms of ultimate alterations or permanences in the mind-atoms, all laws about velocity and mass could be expressed in the same terms. But consciousness? Here we pause, not a little doubtful. Is consciousness a mere aggregation of atoms of feeling?

All consciousness is a synthesis of many elements into unity. The consciousness of the parts of a rose or of a house exists more or less vaguely in my mind. In saying, "This is a rose" or "a house," I actively combine these parts into a whole that is more than their sum. The parts are, as parts, mutually indifferent. Add to the present sensations any number of faint revivals of past sensations, and you have still only an aggregate of

disjointed discontinuous elements, until in the "unity of apperception," continuity and wholeness shall be granted to the aggregate. If *a, b, c, d, e, &c.*, are separate and really distinct elementary feelings, say of colour, I see not wherein shall consist their continuity as mere elements. How out of them shall there arise in me the perception of a continuous coloured surface? Physiological psychology can here be of no aid. That science supposes consciousness and outside reality as ultimate realities, and seeks to determine the relation of sensations, simple and complex, to external reality, to nerve-processes, and to consciousness, and in like manner to determine the relations of consciousness to external reality and to the accompanying nerve-processes. In no wise does this science undertake to deduce consciousness from what is not conscious, any more than it seeks to make external reality appear a product of mind. But the Mind-stuff theory seeks to build up consciousness, with all its activity, out of unconscious elements. The theory can only succeed in case consciousness can by any possibility be shown to be an aggregate of elements in themselves unconscious. Can this be done? Our aggregate of colour sensations, is that the perception of a coloured surface? Add to the aggregate any number of associations with past sensations of movement or of touch: have you yet the idea of a coloured surface? No, make the associations as complex as you will, they remain side by side, indifferent to one another, a discrete manifold of materials for consciousness, but not yet a consciousness. But in conscious life we do not find discrete manifolds of sensation that simply come and are passively received. Sensations are always grouped into wholes, and the wholes are known by and in "acts of unity". "This is a rose," I can say. "This is a complex of colour sensations with associations of movement, touch, and smell," I can also upon reflection say; but then, too, I have grouped facts of consciousness into a new unity: I have not succeeded in getting an aggregate of separate sensation-elements. And so consciousness is always more than a sum of sensation-elements; while, given a sum of sensation-elements, there is no way of seeing how by themselves alone they can ever become a consciousness.

In nature it often happens that a manifold of distinct parts results in an unity that is not a mere sum. So every organism, so even every chemical compound, exhibits properties qualitatively different from the properties of the constituent parts. But how are these properties of the compound manifested? Only in the behaviour of the manifold towards the world external to itself. In itself a mass of parts, the whole behaves as one when it comes into relation with other things. The compound molecule is a sum of atoms. But in its behaviour as a molecule

towards other molecules it shows new qualities, and so is more than a mere aggregate. The organism is an aggregate of tissues. But in its behaviour in the presence of the outer world it shows adaptation and an integration of parts, so that we call it one, not a mere aggregate. A mere combination is, when regarded solely in and for itself, never an organised whole. Aggregations are organised wholes only when they behave as such in the presence of other things. A statue is an aggregation of particles of marble; but as such it has no unity. For the spectator it is one; in and for itself it is an aggregate: just as, to the consciousness of an ant crawling over it, it may again appear a mere aggregate. No summing up of parts can make an unity of a mass of discrete constituents, unless this unity exist for some other subject, not for the thing itself.

But consciousness is, in and for itself, an unity, containing a multiplicity of parts, but not wholly made by the summation of these parts. Now, given a sum of mind-atoms, how shall consciousness arise out of them? This complex is to be one. How? In its behaviour towards the external world? Then it would seem one to a higher intelligence, contemplating its behaviour, not to itself. In its symmetry or perfection of structure? Here again only another being, contemplating its perfections, would regard it as one. In and for itself then? But how? The elements *a, b, c, d, e*, &c., are in some mysterious way together, not in space (for they are feelings), nor in another mind (for they themselves are to constitute the whole of some individual mind), but somehow together. And they form in and of themselves but a single consciousness. To this end, is *a* the one element that *apperceives* all the rest? Is *a* then the one unity? Then *a* is the consciousness in question, and not a mere elementary sensation; while *b, c, d*, are superfluous or at least accidental constituents. But are all of them the unity? This is impossible; for by hypothesis these elements are in and of themselves many. There is then no unity, no consciousness possible. And let no one answering say: When I look into my consciousness I find nothing there but an aggregate of impressions arranged in certain forms. No doubt that is all you find—besides that which you have chosen to call "I" and the act of "looking". Apart from the unity of the consciousness of any moment there is doubtless nothing but multiplicity. But this unity itself, what of that?

The present writer does not wish to seem unduly fond of entities of any sort. This "self-consciousness," this "unity," these "forms" in which impressions are arranged, no doubt all of them need further analysis and explanation. No doubt it is overhasty to make them the ground for assuming any spiritual

entity, any soul-substance or absolute self or other figment as their cause or substratum. Metaphysicians have doubtless abused these facts of consciousness; but the facts are none the less there. And the present essay wishes to point out that, be the explanation of the facts what you will, the Mind-stuff doctrine fails to give a possible explanation.

Our objections to the hypothesis of Prof. Clifford are then: First, that if the theory is understood as offering the current "monistic" explanation of the connexion between physical and psychical facts, *viz.*, the explanation that these facts show different sides of one reality, then the theory is merely a sort of scholasticism revived, and substitutes a dead word for a living problem. Secondly, that if by the theory is meant that physical things are nothing but aggregates of ultimate simple mental realities, these realities or feelings, if conceived as unalterable, fail to explain anything and, even if conceived as changing in particular fashions, still fail to explain consciousness. Thirdly, that, since all changes of grouping, of distance, of direction, are excluded from the world of reality by the hypothesis in question, all change will be change in the interior of the individual mind-atom, and that thus the theory is committed to a method of regarding the world which will at best involve us in enormous difficulties as soon as we try to explain actual phenomena.

The importance of the questions involved has detained us longer over this theory than some may think necessary. And in truth mere refutation is unprofitable except as preparing the way for positive results, results either already in our grasp or still to be sought. The present writer is confident that a theory can be suggested as a solution of this problem, a theory that shall be at once idealistic and critical, just to the facts of consciousness and adequate to the demands of the philosophy of nature. Such a theory, if formulated, will not deal in entities nor in substances, spiritual or material, but will simply and accurately state what we mean and imply when we assert the distinction and the connexion of physical and psychical phenomena. To the statement and proof of such a theory, the writer hopes to devote his efforts in a future paper. At present he is content with formulating a purely negative result.

JOSIAH ROYCE.

V.—GEORGE ELIOT'S ART.

THOSE who have been most profoundly impressed with George Eliot's writings are apt to think and speak of her as a discoverer and enforcer of moral truth rather than as an artist, and those who enjoying, in addition, the great privilege of her personal acquaintance, were able to see how directly the writings conveyed the ideas, purposes and longings which held undisturbed sway in her own life, must always recognise in these writings the message of a great and inspired teacher.

Yet it is certain that her message is transmitted through a medium which is now commonly recognised as a form of art; and this being so, the very fact that in her writings the didactic element is that which gives the colour and determines the quality of the after-impression, naturally raises the questions: How far has she fulfilled the conditions of the art which she has selected? Has she striven to compass the ends of art, the delight in things as wonderful, beautiful, sublime, or mirth-provoking, and in their far-reaching harmonies, so far as they are compassable within the limits of the particular art which she has chosen? That her work raises these questions, criticism has distinctly seen. What it has not so clearly seen is that her achievements raise the wider questions: What is the special distinguishing function of the modern art of fiction? What is its relation to the other arts? In what way is it most likely to reach a result at all commensurable with that of the sister arts, poetry and the drama? I need hardly say that it is this side of George Eliot's writings which I propose to deal with here. I am not concerned with appreciating her exact rank as a novelist. I wish only to estimate the conception of her art which is not only latent in every work, but which now and again comes to the surface, shaping itself into an explicit utterance.

In attempting this I frankly admit the risks of bias. In the eyes of the psychologist the works of George Eliot must always possess a high value by reason of their large scientific insight into character and life, and one who has derived so many suggestive observations from her writings will naturally be disposed to rank these highly in all respects. Yet I would fain believe that in spite of this danger one may succeed in estimating her art objectively, that is to say, by a reference to the possibilities of fiction as a whole.

In order to answer the question here raised, we must, it is plain, try to detach from the works of George Eliot those characteristics which seem to be fundamental, not accidentally

related to peculiarities of personal feeling or experience, but belonging to her very conception of the art of fiction.

In trying to determine the essential qualities of George Eliot's art we shall do well to consider separately what is most characteristic in her choice of material or subject, and in her artistic treatment and mode of presentment. The two will be found to be organically connected, yet there is an obvious convenience in dealing with them apart.

Again, in inspecting the material with which our artist chooses to work we must adopt the further well-recognised distinction between the characters and the story. Here we have to do with things still more closely united than are subject and mode of treatment. Yet the conventions of criticism have long since fixed the distinction as a convenient one.

Looking, then, first at George Eliot's gallery of portraits what strikes one first perhaps is their homeliness. She might be called the homely novelist *par excellence*. She has taken her men and women for the most part out of English society, most purely English because of its provincial seclusion, and out of those intermediate grades which are best known to the majority of her readers as to herself. And what is true of the class is true of the individuals. They are quite ordinary characters, fair specimens of their class, representing the level of intellectual attainment and moral culture of the average Englishman. They are in no sense preternaturally endowed with admirable excellences: nor are they extraordinarily weighted with unlovely vices. One may add that the author has expressly avowed her deliberate preference for such common familiar examples of the human species. It is enough here to refer to the long passage in *Adam Bede* (Book II, ch. xvii.) *à propos* of Mr. Irwine, which might have been headed *apologia pro mea arte*.

As with her *dramatis personæ* so with her action. The story which she unfolds before us is that of lives which are in no extraordinary sense eventful, in which external agitations, the upheavals of wonted surroundings are no more frequent than we should probably find them to be in the homely experiences which are here mirrored for us. We have presented to us "fragments of lives," in which the forces at work lie almost entirely within the familiar characters and the familiar circumstances which she paints, and her plots are just the development of these latent forces.

At first sight it would seem as if George Eliot, in thus choosing her field, must have placed herself at an enormous disadvantage. By so doing, it may be said, she has cut herself off from the splendid effects of Scott, from the stately beauties of

Thackeray, from the thrilling horrors of Balzac and Dickens, and from the quaint picturesqueness of Auerbach. What is familiar is apt to pall, and the region of romance is supposed by most persons to lie as far as possible from everyday life. Yet the fact is incontestable that she has by means of her homely stories awakened a vivid interest. The feeling produced may not be exactly the same in quality as that excited by other styles of novel; but it is as full and satisfying. To explain this effect of the familiar and the commonplace seen through the medium of her art-presentment is to discover the secret we are in quest of. I may provisionally give what I hold to be the explanation in her own words. "In natural science," she writes, in *The Mill on the Floss*, "I have understood, there is nothing petty to the mind that has a large vision of relations, and to which every single object suggests a vast sum of conditions. It is surely the same with the observation of human life." This I hope to make clear in the course of the following examination.

Considering first her characters, we find that by common consent they have reality and life; and this not because they remind us of familiar realities, but because they are so presented to our imagination as at once, and so long as we recall them, to stand out as solid shapes.

To account for this effect of vivid presentment, criticism, content with its current phraseology, probably remarks: Her figures are sketched with a firm hand, well defined, and consistently filled in. This is hardly enough for the psychologist who would discover the deep-lying conditions of the effect.

To say that in fiction a character has body and life is to say that it has individuality. Now it seems self-evident that an individual differs from a typical creation in so far as it gives us an equivalent for that sum of physical and mental peculiarities which constitute an individual object in real life.

But art is necessarily limited in its presentment of individuality. In vain would the novelist seek to give the reader a full account of all the characteristic mental qualities composing an individual mind, whether directly by description, or indirectly by illustrating their effects in speech and action. Nay more, it would be impossible to exhaust even the physical peculiarities which make up the visible individual. Balzac's attempts to exhaustively describe his personages, their external conditions and belongings, is a sufficient illustration of the futility of this aim. The individual combinations of nature being thus in a manner infinite quantities, it follows that the novelist in constructing his ideal men and women must fall back on some shorter device.

There are different ways of individualising the figures which move in the world of fiction, and these may be said to correspond roughly to different degrees of knowledge in real life. I may happen to have once met the rector of a particular village, to have noticed certain striking physical peculiarities, and to have inferred from his conversation that he was a person of narrow and dogmatic mind. Henceforth he remains for my mind, in a sense, an individual, defined as to his place of residence and official position, also having a measure of physical distinctiveness. On the mental side, however, he has no individuality: he is nothing but the representative of a class, nothing but a type.

There is a style of fiction, by some ranked very highly, which presents its characters in this bare typical form. Their *physique* may be described with some fulness, or hit off in a few words, thanks to the presence of an almost abnormal oddity or two; but their *morale* is nothing but a psychical fragment torn from the organism of which it is a living part.

A higher kind of artistic characterisation aims at giving something of the complexity of the mental organisation. We see the inner as well as the outer side of the living personality. We recognise a well defined form of character constituted by a combination of a number of qualities, intellectual and moral, in certain proportions of energy or intensity. We recognise too that this vital structure stands in intimate relation to that particular set of circumstances which forms for the individual in question his distinctive environment. This fuller kind of individuality answers to the larger knowledge which fair opportunities of observation supply in actual life. It presents to view only a certain number of features, but such as by their size, the space they occupy, would form the chief content of our mental representation of the individual if he were known to us in real life.

Now George Eliot's characters are individualised in this latter way. Much more attention is given to their *morale* than to their *physique*, though this is not neglected. Her feeling with respect to those mechanical abstractions, those disjointed members of the psychical organism which do duty as characters in respectable novels, but which almost make the thoughtful observer of human nature shudder with a sympathetic sense of mutilation, is pretty clearly expressed in the second chapter of *Adam Bede*, when she refers to the theory "that nature has theatrical properties, and with the considerate view of facilitating art and psychology 'makes up' her characters so that there may be no mistake about them".¹

¹ A point of some interest to the psychologist arises in connexion with the genesis of George Eliot's art. The fact that her best stories, like those

Nobody who has read George Eliot will fail to understand the seemingly paradoxical remark that she delights in exposing the inconsistencies of character. Nothing is more characteristic of her work than this, and yet nothing seems to offend more directly against the current canons of art. But after all it is only in appearance that she offends. For in detecting the inconsistencies she harmonises them by means of a more profound intuition of moral unity. To her vision passing below the surface, the human mind is something which must appear eminently inconsequent to a shallow observer. The dominant impulses, or what she calls in one place "the persistent self," are crossed and complicated by antagonistic forces which may for a time seem to carry the day: meanwhile the persistent self, we clearly perceive, "pauses and awaits us". Maggie Tulliver, one of her finest creations, I think, was nothing but a bundle of inconsistencies to her brother. Yet the reader who looks deep enough sees these alternations of passionate longing and renunciation to be the outflow of one complex individuality.

This deeper and more complex basis, these organic roots of personality, are rarely known even to the individual himself. They include obscure moral tendencies, nascent forces, which, though they mingle with and help to colour the currents of thought and action, never come into the distinct light of self-consciousness, because circumstances have never supplied the stimulus needed to develop their full energy. And this explains the fact that George Eliot lays so much stress on the sub-conscious region of mental life, the domain of vague emotion and rapid fugitive thought.

Another thing strikes us in the build of George Eliot's characters. A character divorced from its surroundings is an abstraction. A personality is only a concrete living whole when we attach it by a net-work of organic filaments to its particular environment, physical and social. Our author evidently chooses her surroundings with strict regard to her characters. She paints nature, less in its own beauty and less in its universal suggestiveness, than in its special aspect and significance for those whom she sets in its midst. "The bushy hedgerows," "the pool in the corner of the field where the grasses were dank," "the sudden slope of the old marl-pit making a red background for the burdock"—these things are touched caressingly and lingered over because they are so much to the "midland-bred souls" whose history is here recorded: so much because of cumulative recollection reaching back to the time

of Charlotte Brontë, draw their materials from early personal observation, is highly suggestive with respect to the conditions of the development of the most vivid kind of creative imagination.

when they "toddled among" them, or perhaps learnt them by heart standing between their father's knees while he drove leisurely". And what applies to the natural environment applies still more to those narrower surroundings which men construct for themselves, and which form their daily shelter, their workshop, their place of social confluence. The human interest which our author sheds about the mill, the carpenter's shop, the dairy, the village church, and even the stiff uninviting conventicle, shows that she looks on these as having a living continuity with the people whom she sets among them. Their artistic value is but a reflection of all that they mean to those for whom they have made the nearer and habitually enclosing world.

A similar remark applies to the social surroundings. The figures and groups which constitute the human background for George Eliot's portraits are chosen not so much with a view to a sufficient variety of form, and those powerful effects of contrast and relief which are perhaps illustrated most distinctly in the novels of Victor Hugo, though these ends are not wholly lost sight of. They are given us as an essential, the most essential, part of the belongings of the leading characters, as that part of the environment which has most to do in determining the final form which the congeries of crude impulses making the germ of individual character shall assume, in fixing the habitual channels of the emotions, the direction of the aims, the form of the obligations. The well-drawn family groups which appear in the middle distance of George Eliot's pictures, as for example the aunts and uncles of Tom and Maggie Tulliver, with their strongly marked family character embodying the most potent traditional influences of the miller's house, have their chief *raison d'être* in this motive to exhibit the *dramatis personæ* in their most important and fruitful connexions. And a like consideration accounts for the presence in the dim background of her paintings of a representation of that larger community, with which all of us hold more intimate relations than we are wont to suppose, which helps to mould us by its unwritten laws, and the influence of which becomes more distinct in proportion to the prominence of our social position.

George Eliot's characters then, are eminently concrete and individual. We can only understand her effect if we keep this fact steadily in view. And yet in a sense it must be allowed that they are representative and typical creations. And by this I mean not typical of an abstract moral category as Molière's characters.¹ It would be to give a very poor impression

¹ It may be said that characters like Hetty Sorrel or Rosamund Viney, as contrasted with Gwendolen Harleth, are thus typical owing to their ex-

of Adam Bede to say he was the type of an independent village artisan, or of Mrs. Poyser to say she stands for the shrewd industrious farmer's wife. Adam Bede is not an average specimen of his class. It would be nearer the truth to say that like Shylock he represents a fuller development of certain characteristic traits of his class. Yet even this is misleading. The characters of a novel can be much more filled in than those of a drama can be, and George Eliot's figures are too individual to allow us to resolve them into representatives of classes, even such specialised concrete classes as rural English clergymen, and so on. Mr. Irwine, Mr. Debarry and Mr. Farebrother are alike true examples of their class, yet representing very unlike moral sub-varieties of the class. So Mr. Lyon is by no means a representative dissenting minister, nor is Mr. Casaubon a typical scholar. In the case of all her more developed characters we are unable to describe and classify in this easy fashion. Nevertheless they are representative, though not of a ready-made class: they illustrate the action of a definite set of external conditions on a complex variety of character. And in proportion to our insight into the reality of the moral structure and its relation to its surroundings, will be our recognition of this higher kind of representative function.

To say that the characters of fiction are real, is to say that they are understood. Now a character is only understood when the spectator is able, in a measure, to make it his own by assimilating himself to it at the moment in active sympathy. To do this, however, is to recognise the character as natural and human. The highest creations of art satisfy this condition; and George Eliot's men and women are allowed by all to be essentially human.

This large humanity that shines through George Eliot's essentially individual characters, is due, first and mainly, to that fact of organic complexity which we feel to be the deepest thing in our own structure, and to be that which distinguishes living beings from mechanically constructed puppets. This complexity, moreover, embraces the large primal forces of our nature which constitute our *moral* character. And this for two reasons, first of all, because you cannot go far down in constructing a character, without lighting on these bases: and secondly, because to George Eliot the life-story, as we shall presently see, is essentially the moral conflict in its ever varying outer form.

The other consideration, which accounts for the large human significance of George Eliot's characters, is that she exhibits them ceptional simplicity. Yet it is worth noting that both these examples of a vain selfish girl show an unexpected responsiveness to the ennobling influence of a large-hearted woman.

to us in the making. We see by a reference to their remote beginnings in early life, when impressions are most powerful and enduring and habit takes its shape for life, to inherited and traditional influence, and to the intricate play of circumstance, how they have come to be. And in seeing this we cannot help reflecting that they are but our common human metal poured into life-moulds of particular shapes, and so wrought into the variety of forms which we see; while to reflect thus, is at least dimly to recognise the fact that we ourselves, thus acted on and conditioned, should have taken some such shape as theirs.

In this way, then, George Eliot's characters, by the very fact of their concrete fulness, their organic completeness, without ceasing to be individuals and supremely interesting as such, disclose to the eye of reflection the elementary tissues of our common humanity.

I have observed that the distinction between the characters and the plot of a novel is only a rough distinction. This remark applies with special force to George Eliot's stories. These appear in a remarkable degree, when regarded from one point of view, as the outcome of her characters, from another point of view, as the formation of these characters. II

The theme of George Eliot's stories is human experience, taken in all its depth of joy and suffering. She does not depict for us merely the surface-play of life, the outside show of social intercourse, but interests us in its deep-lying issues. In brief, her theme is essentially that tragedy, of as contrasted with that of comedy. She herself has told us that her aim is to disclose the tragedy which lies below the surface of commonplace lives. The effect of her novels is due to a vivid sympathy with the changeful experience of the men and women whom she presents. She appeals to our pity and terror, through a sense of a common human destiny. This must be steadily kept in view if we are to appreciate her art justly.

Modern tragedy differs from classic in its conception of the conditions of human nature. We have substituted for the old idea of an external divine necessity (*ἀνάγκη δαιμόνων*) an internal psychological necessity, for an objective Retributive Justice (*νέμεσις*) a subjective Nemesis, and our author stands among the first in recognising the rigorous laws which connect happiness and misery with our habitual thoughts, impulses, and volitions. Not that she overlooks the other factor, external circumstances. On the contrary, she has a keen eye for the far-reaching consequences of what look like most trivial accidents, as for example, the particular turn of a curve in woman's lip or neck. But the outer circumstances effect what they do effect only because they

fall in with certain pre-existing moral conditions. And, be it remembered, the most potent of external circumstances are the relatives and friends with whom we hold habitual intercourse: what has most to do in colouring our lot after our own actions, is the conduct of these. The most striking situations in her stories, *e.g.*, the relation between Dorothea and Will Ladislaw after Mr. Casaubon's death, are seen thus to follow from the actions of others. Consequently the characters fill the chief space in her stories. These last are, in a special sense, the product of the first. For the same reason the dialogue assumes almost a dramatic prominence in her novels.

This way of looking at human life necessarily brings into prominence its moral aspect. The severe conflicts of life are all forms of the struggle between private inclination and social obligation. And our author, by taking a large view of the results of conduct, in the lives of others as well as our own, naturally sees the moral problem emerging on all sides, in the humblest phases of the routine of commonplace life. She excites our tragic pity and horror by a distinct and powerful presentment of this moral collision, this clash of individual wish and regard for others, which is but the higher self, whether this be a single person, as a friend, a brother, a mother, or a group, as a family, or race. She gives a gravity to the 'insignificant' parts of life, by showing from what small beginnings of plodding endeavour or idle neglect the lasting weal or woe of our closely and intricately interlacing individual lives takes its rise.

I have said that George Eliot's stories may just as well be called the production of characters, as their products. And this follows from the fact that they exhibit the process of moral conflict with its varying result of temporary debasement of nature, followed by a lasting remorse, as in the history of Arthur Donnithorne; of utter demoralisation, as in the case of Tito, or Bulstrode; or of upward spiritual development, as in the history of her well-known heroines. In all cases, the moral experience results in a modification of character, in a readjustment of impulse to outer conditions; and it may be added that these processes of moral decay and growth frequently result, as in the case of the young Tulliver, or of Harold Transome, in the development of unsuspected germs of character, which easily give a look of *historical* inconsistency to the characters in the eyes of superficial observers.

The recurring and principal variation of this theme of moral transformation is the somewhat cruel operation of clipping the wings of young aspiration, and of bringing the nature of the ardent aspirant into a state of adaptation to the proximate realities of life. This appears, not only in the lives of her pro-

minent heroes and heroines, Maggie Tulliver, Dorothea Brooke, Felix Holt, and Daniel Deronda, but also in the less conspicuous histories of Harold Transome, Philip Wakem, Lydgate, and so on.

And now, perhaps we have carried the analysis of George Eliot's art far enough to understand how she manages to reach so fine an effect, by means of what seem such rude instruments. Her characters live for us; we know them as individuals, while in thus knowing them we recognise in them new embodiments of familiar human traits. Their fortunes awaken a vivid interest, which gives to the story the force of a tragic action. And this large outflow of sympathy with commonplace men and women is brought about by the author's presentation of the intrinsic and hidden relations of human experience to human character, of the dependence of joy and of suffering on the humblest processes of everyday conduct. In a word, she evokes a tragic interest out of common lives, because she sees and makes us see the far-reaching results of insignificant things, because she has and gives to us a "large vision of relations". If this is a fair account of George Eliot's central conception and artistic aim, we may by help of it understand some of the peculiarities of form observable in her workmanship.

Since it is her object to present to our imaginative intuition a complex interplay of moral forces, passing phases of that intricate reciprocal action of individual on individual which makes up the chief part of what we call human life, it is natural that she should confine herself to short periods of the life-history. Every reader of fiction must have been struck with the shortness of the time represented in stories like *Adam Bede*, *Felix Holt*, *Middlemarch*, and *Daniel Deronda*, with the dramatic compression of their plots.¹ Just as her novels are dramatic in observing narrow limits of time, so they are dramatic in moving within narrow limits of place, and the artistic justification of each is one and the same. Only by keeping to a definite locality, with its fixed set of influences, physical and social, could the effect of the extraneous and accidental be excluded.² And only by taking a short period of the life-history could the gradual evolution of the tragic situation out of small

¹ The *Mill on the Floss* is an exception. It is to be added that there is a gap of sixteen years between Parts I. and II. of *Silas Marner*.

² It belongs to this that our author so rarely transports any of her characters out of the locality selected. The few exceptions to this, as the self-imposed exile of Arthur Donnithorne, and the long absence of Harold Transome, do not affect the truth of the observation. *Daniel Deronda* deviates from the older type of novel in the expansion of locality, as in many other respects.

beginnings, and the growth of character under the continuous play of an intricate system of outer forces, be set forth in all their successive stages.

In the second place, we are now able to see how it is that George Eliot gives her readers so much of what is called psychological analysis, and generally of scientific reflection on character and life. By psychological analysis in fiction is meant the unfolding of the inner germs of action, the spreading out before the eye those complicated activities of imagination and desire, impulse and counter-impulse, which are conduct in process of becoming. Inasmuch as it is her capital artistic tenet that human action is complex, in its origins as in its issues, it follows that she must in order to exhibit this complexity lay much stress on those subtle internal processes of preparation and rehearsal. "Men like planets (she writes in *Daniel Deronda*) have both a visible and an invisible history." Our author lifts the invisible history to a prominent position, partly because the visible history as soon as it becomes intricate cannot be understood apart from it: partly, too, no doubt, because the inner history, the lyric flow of inaudible emotions, and the keen dramatic oppositions of invisible desires and aversions, beliefs and doubts, has a deep interest of its own for the sympathetic mind.¹

Precisely the same considerations appear to me to explain the presence of so large a quantity of quasi-scientific reflection on character and life in George Eliot's writings. A writer who is content to depict simple actions, springing from the most familiar impulses or conjunctions of impulses, and exhibiting, in consequence, the relations of cause and effect in a very obvious manner, can count on the rapid apprehension of the sequences by the unaided imagination of the reader. The process of apprehension hardly involves any conscious reflection: the understanding of the events approximates in its directness and rapidity to a sense-perception. If, however, the action grows complex, involving an intricate and unfamiliar combination of influences; if, further, these are related to special individual characteristics, the full understanding of which takes us back to those first years of existence when the most abiding impressions are received and the foundations of life-habits laid,—this rapid

¹ It may be doubted whether George Eliot has an excessive leaning to psychological analysis for its own sake, as Balzac for example seems to have. It is noticeable that in introducing her characters she commonly gives us, in place of a mere dissection, a history of the character. The way in which Lydgate's character is thus set forth as a product of past experience (*Middlemarch*, Book II., ch. XV.) is an excellent illustration of this 'genetic method' of presentation. Compare the introductory sketches of Mr. Irwine, Harold Transome, and Daniel Deronda.

intuitive apprehension is no longer possible. In order to seize the complex action with its whole cluster of relations, the reader needs to have the intertwining twigs untwined, and each separate growth referred to its proper origin. But such understanding progresses slowly, and involves reflection on the collective results of our past experience. That is to say, we only see the particular relations of cause and effect in the instances before us by consciously recalling the generalised results of past observation. Now the ordinary reader if left to himself is not equal to all this. Our author comes to his aid by supplying the general truth, the fruit of numerous observations, which at once imparts a look of familiarity to the new moral event. The particular sequence of motive and action is intuited at last, but only when thought has intervened with the light of a general reflection.

This I take to be the first reason for the large infusion of psychological reflection in our author's writings: it is necessarily involved in her selection of the intricacies of life and character for artistic representation. Yet it is not the sole reason. Long before George Eliot had exercised us in her subtle kind of reflection, dramatists, ancient and modern, and novelists too, had accustomed us to see behind the single concrete presentation some universal truth, some pervading law. And the reason is plain enough. The mind that reflects is in actual life naturally carried on from the isolated facts of perception to the uniting law which at once explains them, and is illustrated by them. We reach a large intellectual satisfaction this way, not simply because all complete understanding of the individual fact implies a reference to the general truth, but because the re-apprehension of a universal truth is itself gratifying, and because the most vivid mode of such re-apprehension arises just in this way of recognising a new concrete illustration of the truth.

What distinguishes the reflection of George Eliot's writings from that of earlier works is, first of all, its penetration, its subtlety, and its scientific precision. And it is this fact which renders her even to the trained psychologist a teacher of new truths, truths to which he would never have found his way deductively, though after her large experience and accurate observation have discovered them for him he can easily connect them with familiar principles. In the second place, George Eliot's thoughts on man and life are much more closely interwoven with the narrative than those of earlier novelists of whom Fielding may be taken as a type.¹ It is this

¹ See the playful reference to Fielding's chats with his readers at the beginning of the fifteenth chapter of *Middlemarch*.

fact which accounts for the exquisite intellectual pleasure which her works afford the thoughtful mind. She brings the rays of thought to bear directly on the particular phenomenon; or, to put it the other way, she lets us see the general truth, the universal law, directly shining through the particular phenomenon as through a transparent medium.

And here we naturally take up the point touched on at the beginning of our inquiry, the place of George Eliot's moral teaching in her art. It is commonly agreed that she is a moral teacher. But what exactly is meant by this? Ethical instruction may consist in one of two things: either in setting up some ideal to be aimed at, in enforcing some exhortation; or, in the second place, in affirming a relation between events, actions and their consequences. That is to say, it may be teaching which falls into the imperative or into the indicative mood. Mr. Carlyle is a moral teacher in the first sense: George Eliot rather in the second sense. She does not exhort though she might find occasions enough. Nor are her stories like the *Teniden-romanz* seen to obviously aim at teaching some practical lesson. It is only dramatically, through those characters which, we can easily guess, reflect her own views of life's chief good and highest aims, that she can be said to enforce a moral end.

Our author is a moral teacher in the sense that she holds the mirror up to nature in such a way as to disclose to view the finer threads which bind together the inner and the outer life, the early and the late experience, the individual and the common lot. Choosing as she does the tragic side of common things, she must, as we have seen, bring into prominence those connexions between events on which ethics has to ground its rules. And her characteristic bent of reflection serves to throw these moral issues of everyday events into yet clearer light. In this way no attentive reader of George Eliot can fail to learn from her more respecting the continuity of our moral being, the lasting effects of all that we do, even of that which we forget,—the truth that "our deeds are like children that are born, to us, they live and act apart from our own will,"—the critical character of the first overt act in fixing the direction of habit, the shortsightedness of selfish passion, and so on.

Our author teaches moral truth much more implicitly than explicitly. How little of definite ethical doctrine is to be found in her writings may be seen by one or two considerations. To begin with, it would, I think, be impossible to say whether her conception of the highest good is hedonistic or not. In the sacrifices of personal ambition to social obligations which she often depicts, does she mean that the good ultimately realised is

simply moral perfection or along with this a chastened happiness, receiving its chief nutriment from the satisfaction of orderly affections? That we should hesitate to say, shows plainly enough that George Eliot gives us a life-like picture of the moral struggle, not a theory of it.

In the second place, we can learn from her own words that even supposing the highest end of conduct had been perfectly clear to her vision, she would have been unable to give definite rules for compassing it. Her estimate of the cut and dried morality fixed in the rigid maxims of opinion, the morality of the public opinion of St. Ogs, for example, was not a high one. "Moral judgments (she writes) must remain false and hollow, unless they are checked and enlightened by a perpetual reference to the special circumstances that mark the individual lot." To her mind the ordinary individual life would have lacked one of its chief elements of tragedy if it had not been weighted with that problem which each of us, with but scanty aid from moral codes, has to work out for himself: What ought I to do here and now? And believing this, seeing here as elsewhere, the infinite complexity and variability of things, she could not give us any definite moral prescriptions.¹

The moral influence of George Eliot works less by didactic agencies than by a subtle sympathetic contact of the reader's mind with her own. What constitutes more than anything else our author's 'subjectivity,' the infusion of her own personality into her writings, is the mood of compassionate tenderness touched with playful indulgence in which she seems to look out on her ideal offspring, that attitude of a large maternal charity which implies a perfect comprehension of everything that is seen. The reader is aware of the presence of a wide and yet discriminating sympathy with mankind, of an intense philanthropy which is ready to spy the grains of ethical gold in what looks like rubbish, and to cherish every single member of the human family as something worth studying, something that will offer points of attraction for our sympathy. The reader who becomes infected with this wide sympathetic insight, is probably gathering the most precious moral fruit of her work.

In this analysis of George Eliot's art I have been compelled to omit all reference to the style of thought and expression which characterises her writings, her vein of trenchant humour or genial wit with its subtlety of conceit, its novel way of

¹ It is probably the same fine sense of the complexity of events which gives to her utterances respecting the tendencies of progress a look of indecision. It would not be easy to say from her stories whether she regards the effects of modern social transition as a good or an ill: each feeling is represented in her writings.

envisaging things, and her habit of seeking scientific precision in her illustrations and figures of speech. All this is not only highly interesting as connected with the peculiarities of her mind, but offers material for psychological reflection. Yet since it is less obviously connected with her fundamental conception of art, I have thought best to pass it by.

I have tried to get at the organic structure of George Eliot's art. In doing this I have necessarily been guided by the wish to explain her acknowledged influence. Yet the reader may say that I have all through been really begging the question of the artistic quality of her writings. Is this representation of the familiar facts of human nature and life, however rich its suggestiveness for thought, in any proper sense art? Must it not after all fall rather under the description of moral lesson, or at least be classed with those literary species, such as the allegory and the fable, which are intermediate between works of art whose object is beauty, and works of instruction whose object is truth?

Disputes respecting the æsthetic value of individual works of art often involve obscure ideas of what is meant by art. There are those who by repeating the shibboleth 'Art for art's sake,' would seem to aim at erecting art into a kind of metaphysical absolute, 'a thing-in-itself' out of all relation to the minds which are to be impressed and delighted by it. A little common sense reflection will convince anybody that art must be conceived not as an abstraction, but as constituted by its relations to human susceptibilities, and when this is seen the only question which can arise is: Whose feelings in particular are we to set up as determining art? To this question the best answer I know is a double one: The feelings of the many-sided catholic man; and as they present themselves in the most highly developed man.

As we have seen, George Eliot's writings are distinguished from novels in general by the fact that they owe a principal part of their effect to the satisfaction which comes by way of intellectual activity, and of the exercises of the social sentiments. In other words, while they please as other stories do by a variety of concrete characters, by the rhythmic interplay of these individual characters, by a picturesque presentment of life, they give us as a supplementary pleasure, a keen recognition of truth of presentation, a large contemplation of the laws of human nature and of life, and an intensified moral consciousness. And, let it be observed, this added result is gained through the medium of a representation of concrete life. The elating vision of the universal truth, the sympathetic acquiescence in the necessities of life, does not present itself to the

reader's mind as the end which is directly aimed at, and of which the particular story is offered simply as an illustration. On the contrary, these quiet satisfactions are recognised to be a kind of after-effect which remains when the more exciting stage of the impression produced by the particular presentment is passing away.

It appears to me that to say that such pleasurable activities have no place in art enjoyment, is to arbitrarily circumscribe the susceptibilities to which art may appeal. It may be, to speak after the manner of our author, that we must modify our definition of art to suit the complexity of the facts. The catholic man, whom we take as our authority, is among other things an intellectual and moral being. In his habitual survey of actual life there are naturally awakened just those currents of reflection which bring at once sadness and peaceful resignation. And he would feel any artistic representation of life to be inadequate which did not carry on the mind to the same kind of reflection.

Nay more, if he is a man not only of large and varied emotional capabilities, but also of high culture, representing the advanced wave of man's intellectual and moral development, he will be likely to regard this part of the effect of fiction as the most important and indispensable. If what we call social progress can be seen to do anything, it is surely to raise the intellectual activities into the main constituent of our mental life, and among all emotions to deepen, expand, and vivify our social feelings.

George Eliot, in her large and exact conception of life, in her truthful and instructive presentment of it, is touched by the scientific spirit of her age. Her fine sense of the determinateness of human events, of the continuity of our experience, and of the gradations by which character develops, marks her off as the writer of stories who has moved furthest onward in the direction of contemporary ideas.

The same conclusion which is reached by means of this somewhat abstract conception of a typical modern reader, would, I think, be arrived at by a consideration of the peculiar nature of the art of fiction in relation to the other arts, illustrated as this appears to be in its historical developments. Without attempting to discuss so large a subject at the end of an essay, I would suggest that such a line of reflection teaches that fiction, employing the homely vehicle of prose, has to keep specially close to the realities of things; and that, wanting the charm of a beautiful sensuous form, it is compelled to seek the richest and most varied interest in its subject-matter: an end which is only secured when there is a truthful presentment, when the

pleasure comes less by way of surprise than of clear understanding of relations, and when the deeper moral issues of our experience are to some extent, at least, opened up to view.

I am not raising the question what is the relative value of George Eliot's style of fiction. I am only trying to make out that it has its rightful place high up among the developments of the art. Her idea of taking the homely and the familiar, and making it yield an abundance of emotional interest, leaves ample room for other aims, as that of the historical novelist with his greater sweep of action and his more splendid *mise en scène*, of the narrator of the quaint picturesque experience of those further removed in space or in the social perspective, and even of the painter of manners who seeks with fine touches to depict the surface play of familiar contemporary life. These in their way, and she in hers, while producing each their special kind of artistic effect, combine in paying the same homage to truth.

JAMES SULLY.

VI.—NOTES AND DISCUSSIONS.

MR. SPENCER'S PSYCHOLOGICAL "CONGRUITIES" (II.)¹

I wish next to make some observations on Mr. Spencer's handling of Realism *versus* Idealism. Whatever we may think of his success, the effort is so well sustained, that it will permanently continue one of the historical landmarks of the question. In the previous edition of the *Psychology*, the question occupied 200 pages; in the new Part, entitled "Congruities," two new chapters (21 pp.) are added on the subject—"Co-ordination of General Analyses" and "Final Comparison".

A sketch of his line of argument, however brief, is necessary to make criticism intelligible. Fortunately, his habit of providing summaries, as he goes along, makes this task, if not easy, at least less difficult than with the generality of philosophical writers.

We begin with the original handling. Chapter I. is headed "The Final Question". This is confined to stating the work to be done:—"We have to take up the vexed question of Subject and Object. The relation between these, as antithetically-opposed divisions of the entire assemblage of manifestations of the Unknowable, was our datum. The fabric of conclusions built upon it must be unstable if this datum can be proved either untrue or doubtful. Should the idealist be right, the doctrine of Evolution is a dream." Chapter II. is on "The Assumption of Metaphysicians"; which is, that a long and

¹ Continued from MIND XXII., 266-70.

indirect process of gaining the truth is to be preferred to a short and direct one. Chapter III.—“The Words of Metaphysicians”—is an examination at some length of the phraseology first of Berkeley, and next of Hume, with this result:—“What has been said above discloses the significant fact that *language absolutely refuses to express the idealistic and sceptical hypotheses*. No manœuvring enables it to bring up by themselves the states of consciousness overtly referred to, while excluding the states of consciousness referred to by implication. If the words are used, as they must in fact be used by every one, metaphysician or other, with all the intrinsic and extrinsic connotations they have acquired; then we find that separately and jointly they imply existence beyond consciousness”. “Language has, in fact, been throughout its development moulded to express all things under the fundamental relation of subject and object, just as much as the hand has been moulded into fitness for manipulating things presented under this same fundamental relation; and, if detached from this fundamental relation, language becomes as absolutely impotent as an amputated limb in empty space.” Chapter IV.—“The Reasonings of Metaphysicians”—advances a stage. “Let us allow their language to pass without comment: assuming that the words they use can be used without implying all that is to be disproved. And now supposing this, let us examine their reasonings and see whether they can make out their case.” He examines successively Berkeley and Hume; and next discusses Kant's doctrine of Time and Space, and Hamilton's positions respecting Space, and respecting the doctrine of Perception. On them all he finds—“To escape from a difficulty of thought, half-a-dozen impossibilities of thought are offered by way of refuge. And once more, the test of true cognitions, which is alleged to be final, is, without any assigned reason, assumed to be worthless in respect of particular cognitions.” Chapter V.—“Negative Justification of Realism”—introduces us to a series of proofs “that Realism rests on evidence having a greater validity than the evidence on which any counter-hypothesis rests. By such proof the realistic belief is negatively justified; inasmuch as no belief having a better justification exists.” Chap. VI. is—“The Argument from Priority”. This is that “the Realistic conception is everywhere and always, in child, in savage, in rustic, in the metaphysician himself, prior to the Idealistic conception; and that in no mind whatever can the Idealistic conception be reached except through the Realistic one. Realism must be posited before a step can be taken towards propounding Idealism”. Chapter VII. is—“The Argument from Simplicity”. The mental process which yields Realism is simple, and short; the process said to yield Idealism is long, involved and indirect. Chapter VIII. is—“The Argument from Distinctness”. Deliverances of consciousness given in the vivid terms we call sensations, excite a confidence immeasurably exceeding the confidence excited by deliverances given in the faint terms we distinguish as ideas. Chapter IX. is—“A Criterion Wanted”. This begins an investigation continued through the two following chapters into the ultimate test of truth. Chapter XI.—“The Universal

Postulate"—is the contention with Mill as to the doctrine of the Inconceivability of the Negative of a given truth, which is set in contrast to Mill's ultimate test of simple experience as the final basis. One sentence would seem to bring the controversy to an end. "The inconceivableness of its negative affords a far higher warrant for a cognition than does an enumeration of experiences, even though exact and exhaustive, for the reason that *it represents experiences almost infinitely numerous in comparison*". That is to say, the inconceivableness is after all a result of experience. Chapter XII.—"The Test of Relative Validity"—makes out that, of conflicting conclusions, that one must be the most certain which involves the postulate the fewest times. Chap. XIII. is—"Its Corollaries". Putting to any one the question—What is the content of consciousness in contemplating a book?—"So long as he refuses to translate the facts into any hypothesis, he feels simply conscious of the book, and not of an impression of the book—of an objective thing, and not of a subjective thing. He feels that the sole content of his consciousness is the book considered as an external reality. He feels that this recognition of the book as an external reality is a single indivisible act." This is set in opposition to Ferrier's statement that the object of knowledge is the object with the addition of one's self, and to Hamilton's well known version of the act. "Reason is utterly incapable of showing the unreasonableness of those primary deliverances of consciousness which yield Subject and Object as independent existences". Chapter XIV.—"The Positive Justification of Realism," prepares for XV.—"The Dynamics of Consciousness"—or comparison of propositions in respect of the different degrees of strength of cohesion between subject and predicate. "Mysterious as seems the consciousness of something which is yet out of consciousness, the inquirer finds that he alleges the reality of this something in virtue of the ultimate law—he is obliged to think it. There is an indissoluble cohesion between each of those vivid and definite states of consciousness known as a sensation, and an indefinable consciousness which stands for a mode of being beyond sensation, and separate from himself." Chapter XVI.—"Partial Differentiation of Subject and Object"—gives the psychological analysis of the distinction; the leading terms of which are "vivid" states and "faint" states; which are set forth with all the circumstances that accompany each. All this will be perfectly acceptable to the Idealist; indeed, the advent of Idealism was what led to such a minute analysis. The only difference that can arise is as regards the selection, relative prominence, and order of the circumstances. Chapter XVII.—"Completed Differentiation of Subject and Object"—brings out this result, namely, that the vivid aggregate comes to have associated with it in consciousness the idea of Power. Chapter XVIII.—"Developed Conception of the Object"—contends for two things as beyond consciousness:—(1) the unknown correlative of the vivid state we call pressure; (2) that which permanently binds together those infinitely-varied vivid states. (Among all the changes there is something

permanent; an unvarying *neous*. The word "existence" means this permanence.) Chapter XIX.—"Transfigured Realism"—states what modifications the popular or crude realism needs to be philosophically defensible. This admission is made to the Idealist, after describing his system as "a fabric of pseud-ideas," "a disease of language":—"Nevertheless, we must not forget that these complicated aberrations of reason have been the concomitants of a legitimate, and indeed, necessary criticism. Crude Realism claimed as part of knowledge an unlimited territory which transcends knowledge. In showing how unwarranted is this claim, Anti-Realism went to the extreme of denying to Realism all territory whatever. Metaphysical controversy has been the settlement of the limit." The last paragraph runs thus:—"Finally, then, we resume this originally-provisional assumption but now verified truth. Once more we are brought round to the conclusion repeatedly reached by other routes, that behind all manifestations, inner and outer, there is a Power manifested. Here, as before, it has become clear that while the nature of this Power cannot be known—while we lack the faculty of framing even the dimmest conception of it, yet its universal presence is the absolute fact without which there can be no relative facts. Every feeling and thought being but transitory—an entire life made up of such feelings and thoughts being also but transitory—nay, the objects amid which life is passed, though less transitory, being severally in course of losing their individualities, quickly or slowly; we learn that the one thing permanent is the Unknowable Reality hidden under all these changing shapes".

In the new Part, what chiefly calls for notice is a discussion of the alternative positions, as stated thus:—"I shall here assume, as the only possible alternatives, either that there is existence beyond consciousness, or that there *is no* existence beyond consciousness". Taking the last first, he infers from it these absurdities:—Consciousness is unlimited in extension; it is infinite in time; all cause exists within it; eternally existing, it is at once creator and created. Take next the alternative, that there *is* existence beyond consciousness. The implications are—the two existences are both active; they bound one another; causes and their connexions in the one must differ from effects and their connexions in the other. "Thus we are brought again, by another route, to the doctrine of Transfigured Realism. We are shown that, while the opposed doctrines are consistent neither within themselves nor with other beliefs, this doctrine is internally consistent and consistent externally with our beliefs at large." A few more expressions need to be quoted. "Though consciousness of an existence beyond consciousness is inexpugnable, yet the extra-conscious existence not only remains inconceivable in nature, but the nature of its connexion with consciousness cannot be truly conceived." "Ever restrained by its limits, but ever trying to exceed them, consciousness cannot but use the forms of its activity in figuring to itself that which cannot be brought within these forms": "the only possibility is a

symbolical filling up of it—ending an unfinished relation by an unknown term”.

The argument thus imperfectly summarised is in every way worthy of the author's philosophical resources and reputation. I will now endeavour to search out its weak points, from the Idealist's point of view.

1. My first observation is that Mr. Spencer would have done well to have stated clearly, at the outset, the initial difficulty that first led Berkeley and Hume to challenge the commonly-received Realism. At the conclusion of his long argument, he mentions this in a sentence or two; but, he never alludes to it in his adverse criticisms of Berkeley and Hume. I think the discussion should start with a full, clear and emphatic statement of that difficulty. To this would naturally follow the admission that there is something wrong in the vulgar Realism, and a disclaimer of that Realism, and of all that could be said in its favour; which would farther necessitate the putting forward of the purified or corrected doctrine, which the author meant to maintain in preference to the Idealist's solution of the difficulty. I shall have to show the serious disadvantages, to both sides, of leaving to the last the announcement of the author's Transfigured Realism. All the positions taken up in the debate—common Realism, its difficulties, the Idealist's reconciliation, the modified Realism—should stand forth prominent from the very commencement, and perpetually re-appear, in the train of the argument. As it is, the reader is scarcely, if at all, made aware, till the end, that there ever was the smallest necessity for disturbing the peace of mankind by such a controversy. This may not render the author's arguments invalid; but it has an indirect bearing upon these, which I will presently point out.

2. My second remark is that, although to treat the *history* of the question, we need to go back to Berkeley and Hume, yet to *argue* it effectively, we should prefer the more recent statements of the Idealist's case. There are numerous expressions in both these earlier speculators that no Idealist of the present day would bind himself to defend; while it would be a waste of controversial strength, to go back and show, in opposition to Mr. Spencer's criticism, that their language has not been fully exhibited by him. It is quite enough to say that he does not set forth the primary difficulty of Realism. I consider it useless to begin the attack on Idealism farther back than Ferrier's well-known article on Berkeley. That alone would give considerable occupation to the supporter of Realism, and he would achieve no small credit by rebutting all its arguments. Mr. Spencer quotes only one sentence from Ferrier, and that a very vulnerable one; of the vigour and closeness of Ferrier's onslaught on Realism, he seems to have no knowledge. If it were only for his inimitable piquancy of illustration, he ought always to be adduced, when the question is argued with any degree of fulness. As a remark by the way what could be finer than this?—"There are the two things—(1) matter *per*

se, and (2) matter *cum perceptione*. You ring the bell for No. 1, but No. 2 always answers."

3. The foregoing observations are merely preliminary, and do not intimate any deficiency in the author's chain of argumentation. The next remark brings me closer to the point in hand. It is, that I admit, to the fullest degree, the incompatibility between Idealism and ordinary language. The whole tissue of our prevailing speech is Realistic; it supposes a distinction between Object and Subject, wide as the poles asunder: and refuses, as the author remarks, to lend itself to Idealism. The first attempts to find an expression for the Object, in terms of the Subject, were deeply resented; and were necessarily inadequate. It took a long time to find terms broad enough to cover both; we have had to give "consciousness" an enlarged meaning, co-extensive with mental life, we have had to invent the couple of terms—Object and Subject, in order to obtain a basis for an idealistic terminology. Such enlargement has been found a convenience to the Realist also; and Mr. Spencer abundantly avails himself of it, all through his *Psychology*.

In conceding all this, however, we do not concede the futility and absurdity of Idealism. It simply means that there is a very great convenience and satisfaction, in stating the broad contrast between Object and Subject in terms that imply their independent existence. The convenience is not limited to popular topics; it extends also to the Sciences. We have Object Sciences and Subject Sciences; and no error arises anywhere by treating the matter of the Object world as if it were absolutely independent of the Subject. Allowance is made for certain cases of Sense-illusion: but this does not necessitate our going the length of Idealism, although when hard pressed they are incompatible with the popular Realism. I say no more on this at the present stage, as the language-difficulty will re-appear.

4. To come now to the author's chain of argumentation. He conducts us through several steps to the establishment of his Universal Postulate, by which he shapes the mode of appeal to consciousness in the last resort. Comparing the two hypotheses, he finds that Realism has the preference, by Priority, by Simplicity, by Directness, in this appeal. His Universal Postulate is well known, and I do not mean to contest it, as expressed by him; the more so, that he admits it to be an equivalent of accumulated experiences. I may, however, make one remark as to his mode of appealing to consciousness. I must put in a rider or qualification to this appeal, which I think is not sufficiently taken into account.

Granting all that is said as to the evidential value of Priority, Simplicity and Directness, I must observe that our greatest certainties are not based on a single appeal to consciousness. A single act of consciousness will testify to a difference, felt there and then, and likewise to an agreement; but this is too isolated to make a general truth. We need repeated acts of consciousness to establish anything that involves the future; we need to compare various experiences to be sure of any truth, however axiomatic. We soon discover that

there are sources of error and illusion, even in what seems our immediate revelation of consciousness; we have to learn to trust a recent recollection, and distrust a remote one. So that, after all, the final appeal to consciousness is not a simple, indivisible, infallible, irresistible judgment, in any matter that involves general truth. There must, in all important cases, be a considerable range of conscious experiences; and he that makes too short work of this process of comparison, may easily fall into error.

I doubt if Mr. Spencer, in insisting so strongly on the value of a simple reference to consciousness, has ever done full justice to the fallacious tendencies of the human mind. I allude more particularly to the *over-generalising* tendency; the haste to extend to the distant, and the future, an experience of the present. That this is the parent of innumerable errors, is notorious; and it mixes itself with all our primary deliverances, if these presume anything beyond the individual experience of the moment. It is almost impossible for the untutored mind to give a judgment limited to the fact before it. The tendency has an immediate bearing on Realism; for, with or without adequate reason, we presume the continuance of what is now present; we readily fill in all gaps in the perception of things, by their continued existence out of perception; and that continued existence we confidently shape in terms of perception. We may be right, or we may be wrong in this instance; but the tendency itself is a copious source of error, and therefore cannot be adduced as evidence, in any matter of importance.

I perfectly concur with Mr. Spencer in thinking that there is more certainty in a chain of one link, than in a chain of many links. I merely contend that the very shortest step is not authenticated without comparison of instances, to avoid illusion and mistake. Multiplication of conscious acts in this direction (they not being a dependent series) is not a source of weakness but a source of strength; and the greater the issue, the more imperative is the multiplication.

I do not pretend to exhaust this aspect of the question regarding the mode of conducting a final appeal to consciousness. I should have to examine in detail the author's various criteria, and his examples of their application; and as I cannot do this, I make no claim to refute his elaborate scheme of argumentation by this circumstance alone.

5. A very serious consideration now calls for notice. What is it that Mr. Spencer's accumulated evidences and testimonies—the structure of language, and the appeals to the ultimate criteria of truth—go to establish? Is it Crude Realism, or Transfigured Realism? Apparently, it is Crude Realism.

Before Berkeley, no other Realism was thought of; and Mr. Spencer may justly claim for his Transfigured Realism the merit of novelty. The spontaneous workings of human thought brought forth the Crude type; and Mr. Spencer's series of justifications are all in favour of that type. In his refutation of Idealism, he sets against it, not his purified, but the crude, doctrine of Realism. He does not

bring forward the corrected form till the very last ; as if to show that he could overthrow Idealism under any circumstances. But his overthrow of Idealism is accompanied with the setting up of Realism as commonly received. His arguments, if good for anything, are good for proving that form of Realism, which, nevertheless, he has himself to abandon, for the same reasons that led to its abandonment by Berkeley and the Idealists, namely, it being self-contradictory. If such be the character of the doctrine, all its supports must stand condemned ; if these appear to uphold an erroneous doctrine, they must be intrinsically fallacious.

Here then is his difficulty. Is he entitled to receive testimonies and evidence in favour of a doctrine in one form, and pass them over to the doctrine in an altered form ? Of course, everything depends upon the nature of the alteration ; it may be immaterial, or may be material. Still the difficulty has to be faced ; the change has to be explicitly vindicated. It should be articulately shown, that the bearing of the testimonies is not affected by the transformation. I doubt if it would be easy to show this. I rather think that Crude Realism owes all its ready acceptance to its crudity ; to that very ingredient that Mr. Spencer in the end purges away from it. Certainly the testimony of language is in favour of the crude form. Even the final test of "inconceivability of the negative," as applied by the mass of mankind, has always yielded this form.

The reader will now understand the gist of my first observation, namely, that Mr. Spencer should, at the outset, have placed before us, Common Realism, Idealism, and Transfigured Realism ; and should have carried all the three doctrines with him, in applying his ultimate criteria of truth. It was his duty to make a complete refutation both of Common Realism and of Idealism, so as to come at last to the one true doctrine of Transfigured Realism ; a doctrine equally opposed to both the others. "Crude Realism holds that, apart from a perceiving consciousness, the object possesses those attributes by which it is distinguished in perception." This is wrong ; but, unless I have overlooked important statements, we are not told that it is wrong, as the argument proceeds ; we are asked to admit the testimony of those that hold the doctrine in this shape. We do not possess their testimony to it in the other shape,—"the independent existence of the object as unperceived". This is a most essential modification ; it introduces a transcendental element into what was considered a plain matter of fact, and commended itself to the ordinary understanding on that very ground.

6. I say no more upon the author's long argumentation in disproof of Idealism. I do not conclude that it is a failure ; I only suggest what seem to me points of weakness, demanding to be reconsidered and buttressed. I next proceed to review the addition that he has now given to the argument in the form of a comparison of the two opposing views—Idealism and purified Realism. This portion has the advantage of being short and incisive.

He assumes as the only possible alternatives—that there is, or

is not, existence beyond consciousness. Now, speaking from the side of Idealism, I take exception to the wording, as begging the point in dispute. The statement "There is no existence beyond consciousness" is not what an Idealist would make. Still less would any Idealist accept it as interpreted by Mr. Spencer to imply, that consciousness is infinite in space and in time, that it contains within itself all causes, and so on. The Idealist has great difficulties to contend with, in expressing his position, in discovering an outlet from the self-contradiction of Crude Realism. Language has always been in the Realist's favour; the path of the Idealist is hard. But he would never affirm bluntly—"There is no existence beyond consciousness." What he does say is, that we know only what we perceive; that whatever things may be in the universe, they are known solely in the qualities given in consciousness. Anything out of consciousness can be thought of, simply as it shows itself when it returns to consciousness. Conscious properties make up object and subject alike; notwithstanding there is a vast and ineradicable difference between the two classes. Consciousness contains its Object states and its Subject states: all knowledge lies within the compass of these. The Idealist speaks not of Existence, but of Knowledge; the Existence that he postulates is known Existence. He makes allowance for things being temporarily out of consciousness; but he chooses to speak of these only as they appear when they return to consciousness. He considers it illegitimate to cognise the Object world (the only part in dispute) in any other form than as given in consciousness. The limitations thus imposed are most painful and unsatisfactory to the common sense of mankind, and probably ever will remain so. Yet they may be stated in a way to evade all such inferences as Mr. Spencer would draw from the doctrine of Idealism. Consciousness does not necessarily contain all causes within itself; it contains all causes that can be made the subject matter of cognition—that present themselves to the human intelligence.

Compare now the other position—that there is existence beyond consciousness; that there are causes at work that can never come into consciousness; modes of connexion that can never be conceived by us: these existences are the permanent world in the intervals of conscious wakefulness.

If this position were offered as simply one solution of the self-contradiction of Crude Realism, I would give it the most respectful consideration. I am too well aware of the difficulties of the case to refuse any feasible hypothesis. Desperate situations need desperate solvents; Idealism and Transfigured Realism are both of this character; and I am fain to compare their respective demands upon our credence. It is only when Mr. Spencer endeavours to compel, by force of logic, an unconditional renunciation of the one in favour of the other, that I venture to remonstrate by saying that neither is a subject of demonstration or of irresistible compulsion. He is well aware, by this time, how unpalatable to the minds of most men is the doctrine of an unknowable substratum of our known universe. He has heard the sort of criticisms that it is exposed to: clothing ignor-

ance in the forms of knowledge, giving cognoscible predicates to an incognoscible subject, and so on. Only with the greatest difficulty, can the doctrine be kept free from the vice of the old Realism—self-contradiction; indeed, many people do not hesitate to charge it with that vice. I am not of that opinion. It is a most uncomfortable position to be thrust into; there is no denying that much; but then so is Idealism. Apparently we are not destined to find comfort in any of our well-meant attempts to render philosophically self-consistent the plausible Realism of common sense. If I can satisfy myself that the addition of an incognoscible region of things to the cognoscible, is the least of two or three painful alternatives, I will accept it with resignation, and, if possible, with cheerfulness.

7. I wish next to examine the author's two components of Existence beyond Consciousness, in order to see how far their assumption is an absolute necessity to us. The first is an unknown correlative of our consciousness of Resistance. This is Body or Matter. I entirely concur in the view that the feeling of Resistance "is the primordial, the universal, the ever-present constituent of consciousness"—that it is "the mother-tongue of thought". The question then is—Must we assign an unknown counterpart to this feeling, because of its primordial or fundamental character? Mr. Spencer brings out the necessity by the illustration of making the two hands grasp each other, which gives birth to a double feeling—effort in the one hand, and pressure in the other. Each hand is at once a seat of consciousness as active power, and of consciousness of pressure as the effect of this power. From this he passes to the case of an inanimate thing pressing upon the hand, and says that under that pressure we are still unable to suppress from consciousness the representation of the pressure occurring in it as the correlative of resistance offered to it by our muscular effort. In short, in the situation of being pressed upon, we are compelled to think of something pressing, and of that something as more than a phenomenal appearance, say of a book in the hand; as being a permanent unknown cause, which in the act of perception is clothed with known or conscious attributes. With the greatest possible wish to discover the pinch of this necessity, I cannot say that I am convinced of it. The whole fact seems to me capable of being stated in terms of the knowable, the conscious, or the phenomenal; namely, as a concurrence of the state called feeling of pressure or resistance, with a number of other states of visibility, &c.; and I do not see how the question of Realism *versus* Idealism is raised by the situation. The argument from the pulling of the two hands would seem to imply that an inanimate thing must also be a conscious thing; it would amount to the personification of the inanimate powers, which, as a poetical fiction, is so common and so prolific of emotion. But the transition to a resisting object beyond consciousness is not made out in a way to reach my comprehension.

The other component of Existence beyond Consciousness is to me far more intelligible, and also far more cogent. It is the necessity of something to bind together those infinitely various states that we call

states of the Object, to secure their regularity and their recurrence to consciousness, in the way that we find them. This assumption is, I admit, in the highest degree relevant, which I could not say of the other. Every one of us readily feels that our impressions are transient things, yet they come up again with astonishing regularity, in the appropriate situations; and that the easiest way of figuring to ourselves this regularity, is to suppose a permanent something, with all its parts well knit together, so as to repeat our conscious states with the fixity that we actually find. This is ordinary Realism. There is no permanence within consciousness, there is nothing but regularity of arrangement in the moments of recurrence. The permanence, therefore, must be out of consciousness.

Of course we cannot have a *nexus* in the abstract; there must be things to be held together. The previous assumption of formless resisting matter must be the ground-work; and upon it the regularity must be embodied. The universe out of consciousness is made up of these two constituents. Matter and Order are the two elements of the ultra-phenomenal world: they are indescribable in themselves, as being unlike anything in consciousness, yet they are in some way the equivalents of consciousness. I expressed doubts as to the necessity of the first assumption—Matter or Body *per se*; but if the second—the *nexus*—is unavoidable, it must carry the first. What, then, shall we say to the evidence adduced for this *nexus*, or rather to the noumenal matter of the Universe, united by noumenal bonds? I reply at once, that it fills up the void left by consciousness, and seems to supply an assurance of the reproduction or recurrence of conscious states, over and above the facts of their recurrence. It does not furnish any new facts, or help us to any laws that we cannot read in our conscious experience of the Object world. The facts and the laws are all in the sphere of consciousness; the certainty of these, the evidence of their being forthcoming, is helped out, to say the least of it, by their existence, though veiled, in the interim or suspension of consciousness. We can easily suppose all the conscious beings of the universe becoming unconscious, or falling asleep at the same moment. If the universe of being were absolutely dependent on consciousness, it would pass into nothing; yet we believe it would really survive. We believe that the material universe is fitted to survive the extinction of conscious life; we see no impossibility in the hypothesis that it existed before conscious life; and when we put the question—In what form it so existed, Mr. Spencer gives as the answer—an indescribable matter united in fixed laws, which, at the proper moments, appear to consciousness, as conscious matter with conscious laws and properties. There is something at first sight satisfactory in this provision for permanence in the framework of things; and the merits of the supposition, to my mind, stand much more upon its suitability to fill an undoubted blank, than upon any irresistible compulsion of logic, or appeal to the Universal Postulate. Only when placed side by side with the Idealist hypothesis do we see its full force. What we still ask is—Does it, by its necessities, drive the Idealist out of the field?

What has he to say to the difficulty that it meets, to the void that it supplies?

I must answer this by re-stating the Idealist's position, as to the permanence of the object world. He would say, in the first place, that the *nexus* is a convenient fiction for expressing certain facts, namely, the facts of the Object world, in their recurring regularity. It has no evidence of its own, it is beyond the reach of evidence; the facts are the evidence, and, being so, they cannot give greater strength to the supposed noumenal bond than they already possess. The *nexus* takes from them its power, and merely gives back what it got. There is thus really nothing gained in point of evidence. If the *nexus* had an independent testimony, a support *aliunde*, it would be a hypothesis of much higher rank, it might even be considered as proved. But except Mr. Spencer's disputable necessity of thought, it has no such extraneous support. The Idealist, therefore, says—I take the facts of Consciousness as all the evidence I possess for the permanence of the object world; I should be glad to have more, but I do not see where it is to come from. In the constancy of the past, I read the constancy of the future; that is to say, conscious states will recur to me, and to other conscious beings, as they have done before. This is the utmost of my real knowledge: all else is hypothesis or fiction that merely repeats what I know as actuality or fact. I do not deny, I fully admit, that even though consciousness in all conscious beings were to lapse for a million of years, still, on its reviving, it would encounter the same uniform groups of sensations as I do now. I do nothing to strengthen the assurance of this bold stretch, by saying that the object world is in existence, although dormant, in the interval. If it is in existence, I know nothing about it, except in the regular way of its coming into some one's consciousness. In like manner, I am bound to admit the possibility of all that is claimed for the evolution hypothesis; that is, the existence of an Object world, in advance of Subject minds. My theory of perception is large enough to cover this possibility also; although I grant that I may be unsuccessful in so expressing it as to give universal assurance. I see a considerable superiority, on this point, in Mr. Spencer's permanent Unknowable.

8. It seems to me important to state clearly to ourselves, what it is we are differing about; and, in particular, whether the difference is in doctrine, or in expression merely. I think Mr. Spencer would allow that it is not a doctrinal difference; that the Idealist concedes everything requisite for maintaining the framework of things, as we find them; including the pre-conscious past, and the post-conscious future. The Idealist may be inconsistent in this; his language may be inadequate to sustain his intended meaning. Yet the question is no less, on that account, a question of expressing or rendering our situation as percipients of the so-called outside world. There are other questions, in nearly the same position, although none of equal magnitude. It has always seemed to me, for instance, that the Free-Will difficulty is very much a difficulty of expression; the difficulty of

reconciling the two attitudes—looking at another mind, and looking at our own. Greater refinements in the capability of language may resolve such difficulties, without resorting to extraordinary assumptions; in the case of Perception, a mode of expression may be found that gives the fact, the whole fact, and nothing but the fact; that proceeds only on what we know, and yet satisfies us respecting the permanence of the universe in its fullest conception. I do not say that the Idealist has yet compassed this achievement; and, therefore, I consider humility becomes him, and that he should have his mind open to alternative views, which may, in the meantime, do what his fails to do.

9. I wish to make a final remark upon the general doctrine of the Unknowable, of which Mr. Spencer considers this to be a part; there being other questions that find themselves localised in the same wide region. If I take any exception here, it is only to the mixing together of the several transcendental problems, as if they stood or fell on the same grounds. There are three questions:—External Perception, Theism, and Materialism as against the prevailing duality of Body and Mind. Now, I conceive that the alternative solutions of any one of these are quite compatible with the alternatives of any other. For although the duality of Body and Mind is supposed to facilitate the conception of Theism, Materialists may be Theists, without any self-contradiction. Again, it has been conclusively shown, that Idealism and Realism are equally compatible with Theism. It is the sign of a clear metaphysical head, to keep these three questions always distinct; to make each stand on its independent foundation.

10. I conclude by reverting to the necessities and usages of common speech, which will ever continue on the basis of Crude Realism. We may, as Idealists or as Transfigured Realists, think with the philosopher, but we must speak with the vulgar. For this inconsistency, we have a notable precedent. The Copernican astronomer, in his strictest mood, speaks of the sun rising and setting; even the *Nautical Almanack* finds its account in winking at the inconsistency. It is never allowed to introduce practical error into the astronomer's calculations, yet it is a perversion of a scientific fact. In the same way, we shall go on talking of the material world, as of a thing outside and apart from the mind, as having intrinsic properties, exactly such as come up in perception; as existing out of perception in the same manner as in perception.

A. BAIN.

DEFINITION OF CONSCIOUSNESS.

In the article on "Dictionary-defining," which appeared in *MIND*, No. XXII., attention was directed to the nature and methods of legitimate definition, and various rules were formulated for the purpose of showing the scope and limits of the defining process, and more particularly of affording guidance in the handling and presentation of words

expressive of ultimate notions and of such others as require some subtlety of analysis and discrimination. The process, or rather processes, there exhibited are of far-reaching application; and, while they find a field of operation in the dictionary and school-books and such like, they are not less indispensable in the sphere of philosophical and psychological terms. It is now intended in a series of Notes, which the Editor has kindly permitted, to show their application in this latter sphere; and it may be as well at the outset to state with distinctness what is exactly contemplated to be done. In the first place, we may mention that we do not contemplate a full *historical* treatment of the various terms that shall come before us; neither, in the second place, do we contemplate an exhaustive discussion of opposing views and doctrines. Historical matter will indeed be freely introduced, and criticism cannot be avoided; but both the criticism and the history will be conditioned by the end aimed at: their sole value lies for us in the power they possess of helping out or furthering the definition.

Our purpose, then, may be stated in a single sentence. It is the handling, with a view to explanation, of certain prominent and fundamental terms in philosophy, according to the methods already laid down in the Definition-article; additional help being derived from the history of the terms and from a critical sifting of the more approved and current meanings.

A further word may be added, of a preliminary nature, as to our mode of grouping. Obviously, any one of several plans might be adopted. We might arrange the terms in alphabetical order, or we might place them with regard to the science or department they belong to, or we might group them according to their natural alliances. If we except convenience of reference, the first of these methods has little to recommend it, and so may be at once discarded. The second would be admirable, if each term in philosophy stood alone and were strictly confined to one science or department; but, in point of fact, few leading philosophical terms do stand alone, and many of them have various applications—say, a logical aspect, a psychological aspect, a metaphysical aspect, and an ethical aspect. And thus we are driven to the third, or rather, let us say, to the third in combination with the second; and it is this combination that will afford us the method to be pursued on the present occasion. In working out our analyses, we shall sometimes be able to present terms as correlated couples, at other times (though rarely) we shall take them singly; but more commonly we shall have to start with one as a centre, and then to weave around it such others as are most nearly allied to it in meaning or may run the risk of being confounded with it. Only thus shall we define and analyse, shall we compare and discriminate, to advantage; only thus may we hope to gain the clear conception or conceptions whereof we are in quest.

We commence, then, with the connected group whose central term is CONSCIOUSNESS. This group is—*Experience, Consciousness, Knowledge, Conviction, Attention, Perception*. It has been customary in

philosophy to regard consciousness as the primary condition of all mental activity; and, as the complement of this, it has been customary to lay stress upon the circumstance that consciousness is not itself a faculty on a level with the other so-called faculties of the mind, but something that co-exists with every mental act and operation, and without which no faculty could ever be exercised. Now, apart from the antiquated reference to "faculties" here, there is clearly in the conception itself an overstepping of the limits of fact. That mental exercise is in great measure conscious, no one of course disputes; but there is every reason to believe that much of the mind's activity goes on beyond the range of consciousness. Such is the case with secondarily automatic actions, and such, too, is the case with latent mental modifications—"obscure ideas," "sub-consciousness"—or, to express it from the side of physiology, unconscious cerebration.¹ In the face of this, a less sweeping and more guarded definition is required. The line must be drawn between the mind's *wakeful* activity and such other mental activity as stands opposed to this or is distinct from it, but which is, nevertheless, as real and effective—an activity that may go on even during our waking hours, but which is never manifested to us except in its products or results. The mind's wakeful activity is Consciousness—consciousness as opposed to dormancy, dreamless sleep, swoon, insensibility, but not to Death. Death is the cessation of all activity, conscious and unconscious alike; and the opposite of death is Life—a much wider word than Consciousness. Consciousness is *awakeness*: and we must not forget that it has reference both to objective phenomena and to subjective; we are alive to things without us as well as to things within, and the mental and the material may both affect us and both engross or occupy our attention.

To that extent, then, the current definition is objectionable. But it is objectionable further as being founded on a misconception. It calls consciousness a *condition* of mental action. But to call it a condition, or even a concomitant, is to forget that consciousness, taken by itself, is nothing—that it is simply a generic name; a name, therefore, whose meaning is ascertainable only in distinct conscious experiences. In every moment of our conscious being, we exist in some definite state or other. Now we are absorbed in thought, now we are engaged in action, now we are experiencing sensation: but whatever the state at any particular instant may be, it is that particular state and nothing else. There is not both the state and the consciousness of it; the state and the consciousness are identical: or, if anything further be connoted by the name—anything over and above the present experience—it is the circumstance that what now exists in one particular state may next moment be in one or other of an indefinite number of different states; that which thinks may feel, that which feels may will, that which wills may act, and so forth.

¹ This doctrine gives only a seeming countenance to Hegel's Thought or Schopenhauer's Will.

An error akin to the foregoing is that of regarding consciousness as a sort of "luminous atmosphere," in which (as it were) phenomena are steeped and by which they are revealed. This mode of conceiving it is very common, and if it meant nothing more than that conscious activity is only one form of mental activity (the luminous or wakeful form), it might be allowed to pass as an eccentric way of expressing an important fact. But if it means, as apparently it does, that consciousness is something over and above distinct conscious states, it must be condemned as fundamentally erroneous, and the instrumentality of revelation that it speaks of must be discarded as a chimera.

Consciousness, then, is awakeness: and having thus tried to set forth its true nature, let us next—for the sake of clearer apprehension—bring it into relation with other kindred and allied words, where-with it is apt to be confounded.

Consciousness is sometimes used as a synonym for Knowledge; but this can be only by the figure of synecdoche where the whole is put for the part; for Knowledge is only *intellectual* Consciousness, whereas Feeling and Volition are conscious elements no less than Intellect. Knowledge, again, is intellectual consciousness in the form of mental concentration; when, out of the untold variety of conscious experiences that we have, the mind selects this, that, or the other portion, and allows the rest to pass by unheeded. As has been well said, there is a discriminative and there is a selective consciousness, and, though the former is, properly speaking, intellectual, it is only the latter that rises to cognition. Nor is the matter mended if we confine the term to *immediate* Knowledge. The part for which the whole now stands is even smaller than it was before, or, if it is larger, it is only by an unwarrantable stretch or abuse of language. Yet, it is this figurative use that seems to have led Hamilton and others into the mistake of supposing that Consciousness is founded on Knowledge—a view that is sufficiently refuted by pointing to Feeling, where, as a rule, the greater the intellectual pre-occupation the less are we awake to the feeling proper, and conversely.

Again, Consciousness is to be distinguished from Self-consciousness; this latter being, strictly speaking, a contradiction in terms. For if, as is allowed,¹ we have no *immediate* Consciousness of self as apart from its modes and manifestations—if, in other words, we are not *awake* to it—a *mediate* consciousness is absurd. Hence the inadequacy of such a definition as Ferrier's:—"By consciousness we mean the notion of self; that notion of self, and that self-reference, which in man generally, though by no means invariably, accompanies his sensations, passions, emotions, play of reason, or states of mind whatsoever." The only intelligible signification is when Self-consciousness is made to stand for the subject consciousness, as distinguished from the object consciousness,—our wakeful experience of the world within, as distinct from our wakeful experience of the world without.

¹ See Locke, Hume, Kant, Reid, Stewart, Hamilton, Mill, Bain, &c. On the other hand, see Descartes, Berkeley, Mansel, Ferrier.

Not less objectionable is it to identify Consciousness with Conviction: a very common error in philosophical disputes, more particularly in the Free-Will Controversy and in the metaphysical problem of the External World. Conviction is no unerring authority; it may be right or wrong, groundless or defensible, reasonable or absurd: and to try to settle a dispute by an appeal to Consciousness, when all the time it is simply an appeal to deep-rooted conviction (which may be the result of education or of prejudice or of habit, or which may result from one or more of a hundred other causes), is certainly to cut before the point.

A distinction, again, has to be drawn between Consciousness and Attention. Attention is but one form of consciousness—it is consciousness concentrated; which, although most frequently a voluntary act, is not so always. *Awakeness* is not at all the same thing as *awareness*.

Once more, there are various names used by Descartes and the Cartesians as synonymous with consciousness, which, however, are by no means such, and ought therefore to be discriminated. Thus, in the writings of Descartes himself, not only is Thought taken as convertible with Consciousness, but Consciousness is frequently identified with Perception. To Thought we shall return by and by, when we come to treat of Reason; but meanwhile, as to the other, perception is a word with diverse meanings, and surely it does sufficient duty when it is made to stand—now for sense-perception or immediate knowledge through the senses, now for the intellectual or objective element in sense-perception, now for the passivity of mind in contradistinction to volition, which is the mind's activity,—without putting it to this further and more general use. Much the same may be said of Malebranche's "internal sentiment" or "inner feeling". Feeling expresses a distinct and definite enough conception; but, as such, it is only a mode of consciousness—one among several; and to employ it in this extended signification is simply to breed confusion and ambiguity.

There are two other words not unfrequently given as the equivalents of Consciousness, which ought nevertheless to be distinguished: I mean Experience and Apperception. Apperception, if we retain it at all, ought to be restricted to self-consciousness (as above explained), and Experience is a term of the widest import. Be it observed, there is a conscious and there is an unconscious Experience, and the Evolution-theory has taught us that Experience is *inherited*. What, however, in strictness we inherit is not experience, but the results of it. Again, our knowledge of life and of the world is in great measure dependent, not simply on what comes within the range of our own individual Consciousness, but on what we learn on the testimony of others. Experience, accordingly, has to be extended so as to include History. But not even yet are its applications exhausted. It is common in Philosophy to oppose Experience to Intuition. We have here the antithesis of two sources of knowledge, or of what among our mental possessions can be given us by our life as lived in time

and what this time-life is (or seems to be) incapable of originating: in other words, it is the antithesis of the innate and the acquired. In this sense, Experience is regarded as the lower and Intuition as the higher origin: or, to put it otherwise (as is often done), it is the contrast of the more dignified and the less dignified—of the more authoritative and the less authoritative; although upon what reasonable ground the contrast is made, one is rather at a loss to perceive. For, even granting (as we do) the existence of intuitive truths, they cannot at the best be more than true. But the knowledge got from Experience is true also; and to pit the one against the other as the more and the less authoritative, is either to use the word truth equivocally or to deny that truth (*some truth*) is itself true.

It is scarcely necessary, after what has been already said, to remark that there is no proper contrast between Consciousness and the Senses, such as we find Reid making towards the end of the *Inquiry*. There is looseness to a degree in such a sentence as the following:—"The way to avoid both these extremes [*viz.*, spiritualising body and materialising spirit] is to admit the existence of what we see and feel as a first principle, as well as the existence of things whereof we are conscious; and to take our notions of the qualities of body from the testimony of our senses, with the Peripatetics; and our notions of our sensations, from the testimony of consciousness with the Cartesians".

Let us now sum up. What is the conclusion we have reached? As the result of our analysis and comparison, we find that Consciousness is best defined by antithesis and discrimination. When we have brought it into connexion with its opposites, and when we have marked it off from the things most nearly allied to it, we have done the most that words can do to make it evident and plain. Consciousness is a convenient generic name (or, better still, perhaps, collective name), most nearly translatable by the term Awakeness; but we conceive it wrongly when we speak of it either as a condition of mental states or as a concomitant or as a revealer. Once draw the line between wakefulness and non-wakefulness, and it is this, that, or the other mental state, and nothing different; and to regard it otherwise is confusing and unphilosophical.

From this there follow certain important consequences. In the first place, if Consciousness be awakeness, and if it is for the moment identical with the mental wakeful state of that moment, then we see that it refers, strictly speaking, only to the present. A consciousness of the past is absurd. It is Memory that deals with the past; but even Memory, as a mental state, is a present fact. In like manner, there cannot be a consciousness of the future. We *anticipate* the future; but even anticipation as a conscious experience is present. Secondly, if Consciousness be awakeness, it is, as to its existence, beyond the reach of question. Dispute arises only when it is taken as a *testifier*—a testifier of truths intuitive to the exclusion of others; or when it is unlawfully identified with Conviction. Last of all, we can now see the intelligibility of the Cartesian position—that

Knowledge is founded on Consciousness. We do not call that position false; it is simply inadequate. No doubt, Knowledge is founded on Consciousness; but other things (in this sense) are founded on Consciousness as well. Thus, there is no feeling without awakens, neither is there purposive act.

WILLIAM L. DAVIDSON.

SENSE OF DIZZINESS IN DEAF-MUTES.

Professor WILLIAM JAMES has the following Note in the *Harvard University Bulletin* No. 18 (1881):—

"An immense amount of evidence, collected within the last few years, tends to show that the semicircular canals of the internal ear have nothing to do with the function of hearing, but are organs of a special sense hitherto unrecognized as such: the sense, namely, of translation through space, which in its more extreme degrees becomes the feeling of dizziness or vertigo. It occurred to me that, if this theory were true, some, at least, of the inmates of deaf and dumb institutions ought to prove insusceptible of experiencing this latter sensation, for in some either the whole auditory nerve is probably degenerated, or else its ampullar terminations will have shared the local fate, whatever it be, which has abolished the hearing functions of the cochlea. An inquiry was accordingly set on foot, of which the results already most beautifully confirm the modern theory. A very large number of the deaf-mutes examined are either wholly incapable of being made dizzy by the most violent rotations, or experience but a slight and transient giddiness. Others, as was to be expected, are strongly and normally affected. The difference in the demeanour of the two extreme classes of patients is so striking as to leave no room for mistake, and to banish doubt from the most sceptical spectator's mind. In the Horace Mann School in Boston, where 54 children were whirled in a rotary swing, (by far the purest and most powerful means of inducing vertigo), only 2 were made dizzy. At the Hartford Asylum, out of 155 pupils, 49 are reported not dizzy, and 49 hardly dizzy. At the National College for Deaf-mutes in Washington, out of 62 persons examined, 19 are not at all dizzy, and 2 hardly dizzy. I have also received 58 answers to a printed circular of questions: 18 of these report complete absence, 12 a slight degree of dizziness. In all, 326 cases, of whom 131 were not dizzy, and 63 but slightly so. The deficiency in question seems quite independent of the age at which deafness began, semi-mutes and congenitals being found indifferently in all three classes. The number of deaf-mutes who are afflicted with disorders of locomotion seems never to have attracted the attention of physiologists, although it has long been notorious in asylums. The connexion of these disorders with the loss of the semicircular canal sense becomes now a most interesting problem, into which I have begun to inquire. The matter is evidently complicated by the fact that the disease causing deafness may also leave central disorders expressing themselves in anæsthesia of the legs or by ataxia. That this is so appears from the number of semi-mutes who stagger and zigzag in walking, especially in the dark, but who are normal as respects dizziness. Congenital mutes are hardly ever found with disorders of locomotion. The evidence I already have in hand justifies the formation of a tentative hypothesis, as follows: The normal guiding sensation in locomotion is that from the semicircular canals. This is co-ordinated in the cerebellum (which is known to receive auditory nerve fibres) with

the appropriate muscles, and the nervous machinery becomes structurally organised in the first few years of life. If, then, this guiding sensation be suddenly abolished by disease, the machinery is thrown completely out of gear, and must form closer connexions than before either with sight or touch. But the cerebellar tracts, being already organised in another way, yield but slowly to the new co-ordinations now required, and for many years make the patient's gait uncertain, especially in the dark. Where the defect of the auditory nerve is congenital the cerebellar machinery is organised from the very outset in co-ordination with tactile sensations, and no difficulty occurs. To prove this hypothesis a minute medical examination of many typical cases will be required. If this prove confirmatory, it will then appear probable that many of the so-called paralyses after diphtheria, scarlet-fever, etc., may be nothing but sudden anæsthesiæ of the semicircular canals.

"A complete discussion, with further details, is reserved for future publication."

VII.—CRITICAL NOTICES.

Illusions. A Psychological Study. By JAMES SULLY. ("International Scientific Series.") London: Kegan Paul, 1881. Pp. 372.

This book, as a whole, has two distinctive and valuable features:—(1) It takes "illusions" in a wider and more practical sense than usual, extending its view beyond sense-illusions. (2) While fully admitting the validity and importance of the philosophical aspect of the whole question of illusion and error, Mr. Sully has admirably succeeded in keeping clearly before his mind the distinction between science and philosophy, and his treatment is strictly scientific as involving no philosophic assumptions or conclusions.

The keynote of the book is struck in the succinct preface, where Mr. Sully states his aim to be "the description and classification of acknowledged errors, and the explanation of these by a reference to their psychical and physical conditions". But when, in half-apologetic fashion, he goes on to say, "At the same time, I was not able, at the close of my exposition, to avoid pointing out how the psychology leads on to the philosophy of the subject," one is disposed to feel that he need not excuse himself for, so to say, showing his hand at the end. This might rather be named a third characteristic which distinguishes his book and gives it value. It seems a great thing for the general reader and the student of science that they should in such frank and generous fashion have thrown open for them the gateways that lead from science to philosophy, by one who is himself a man of science. The one side of the distinction, that of science, is plainly formulated in the sentence just quoted, as description, classification, and explanation by conditions. The other side, that of philosophy, Mr. Sully will make plain to us in his epilogue.

In Chapter I. he defines his field, taking it to extend beyond false perception, but to stop where fallacy begins. Fallacy is explicit

illusion; illusion, implicit fallacy, *i.e.*, fallacy fallen together into itself with its mediated character hidden under the mask of immediacy. Illusion, then, may be shortly defined to be, *apparently* immediate or self-evident false cognition.

But Mr. Sully is not quite consistent when he allows himself to say, that "our notions of ourselves are for the most part obtained apart from any process of inference". Surely they are not "*obtained*" apart from inference, though it is their differentia to be *held* apart. Understanding "inference" rather loosely, as Mr. Sully evidently does here, to cover all kinds of "ideal construction," a fallacious "inference" taken by inadvertence to be immediate fact of consciousness, might be given as a general definition of illusion. All consciousness unreflected on simulates the certitude of self-evident fact. Reid's handsome list of natural beliefs and "deliverances of consciousness" illustrates illusion from this point of view. To explain such illusions is to resolve them into fallacies—false inferences or spurious structures of representation. That is the very pith of Mr. Sully's science. Yet, he will go no further than say—"Analysis of error *may* discover that these two classes of error are at bottom very *similar*". In this modest way of putting his case, I think we shall find, as we go on, that he does his own thoroughgoing psychological analysis less than justice, as it will inevitably lead us to the conclusion, that illusion to popular inadvertence is to science that has reflected and analysed, fallacy. Thus, that "grand illusion of sense" (if there be any such illusion), that thinks it sees "an external world existing in itself" and in no wise dependent on perception, may turn out to be for us, as it did for Berkeley in the crucible of his analysis, a grand fallacy of scholastic inference. But our author will not commit himself so far. At all events, he relegates such questions to his last chapter, as involving "a certain kind of philosophic reflection," which is not an instrument of science.

Science and common sense have only to assume their "consensus" to be true knowledge, and then consent and consistency become criteria of truth. And illusions are made evident against this background of "universal" and "permanent" human experience, as abnormal, unstable, and transitory, as isolated and individualistic. Note here that illusion is never *absolute*, but always relative to a consistent body of knowledge. The philosophic significance of this will come out in the end.

Meanwhile, assuming provisionally at least, the truth of human experience so far as it possesses solidarity, we get into Chapter II. and "Classification". Mr. Sully indicates that a perfectly scientific one would be based on having thoroughly tracked illusions up to their origins, which would be found to be different kinds of false processes of reasoning; but prefers to adopt a popular division into illusions of Perception, Introspection, Memory, and Belief, which is no doubt a good working one, and covers the ground.

Perception is treated very fully in four chapters (III.-VI.), occupying, with a subchapter on Dreams, quite one third of the volume. This

is not too much space for what is the most obvious region of error, where explanations are most easily worked out and give readiest initiation into the scientific method of treating illusion. And though this is familiar ground, our author irradiates it with novel and striking illustrations and elucidations.

Chapter III. begins with an account of the psychology of normal perception, as *right* reference of present sense-impressions to the context of experience. In the pages that follow, it is evident that Mr. Sully is averse to the parcelling and pigeon-holing kind of mental science, as he shows how the process of perceiving involves "recognition," and leads on to fully conscious judgment and inference. Attending, discriminating, judging, sifting, parting, joining, and classing are all *implicitly* here in perception; and they are operations of Reason. The first single least percept of the infant is the whole science of the sensible world *in nuce*.

Mr. Sully makes a very happy use of Dr. Hughlings Jackson's distinction between "preperception" and "perception proper," taking these not as results, but as moments in the process of perceiving. Thus, the mind wakes up to clear vision of what is before it, first by attending only to the immediate presentment of sense, and letting representations gather and group themselves round this nucleus as it freely suggests them,—this is the moment of "preperception"; and then by attending to the whole thus formed, and so assimilating the degree of vividness of its represented constituent to that of its sense-presented,—this is the moment of "perception proper" and completed. (1) Redintegration, (2) redintegration recognised—not complete and separable states, but two continuous inchoate movements. Perhaps one might have wished that Mr. Sully had been a little more decided about this point, and had also shown more plainly that he recognised as essential the reflective and attentive activity of the mind in both stages. On the contrary, he allows himself in one place to call the first stage "passive" without any qualification.

In seeking for a working definition of perceptual illusion, he encounters an obstructive in the shape of the physicist "reducing all external changes to modes of motion"! But is it quite fair to the physicist to say he thinks he does that? His task would be a very ungracious one, and useless too. "*Naturam expellas, &c.*" Light, colour, heat, sound, smell, and taste would keep on rehabilitating themselves in spite of his efforts, and would insist on their standing in the real world. All he does and professes to do is to give the touch and muscular sense *conditions* of sights, sounds, &c.; or rather, to give his ideal reconstruction of the real sensible world in terms of measurable abstractions from percepts of touch and effort. He is not an enchanter. But, even from such supposed affirmation of the illusoriness of all the senses but the physicist's favourite one, Mr. Sully finds a refuge for us in what appears to be the only criterion of truth—namely, consistency and consent. This is his excellence as a guide. He will never let us quite lose the clue, or get swept out of the main drift of his doctrine. "It is plain," he says, "that the

illusoriness of a perception is determined in relation to the sense-impressions of other moments and situations, or to presumably better percepts than the present one." Because (I suppose) *they* cohere and agree, and *it* is left standing loose or alone. Sight is verified by touch; touch, by sight; and so on. "A quasi-percept peculiar to an individual" is an illusion. "Deviation from the common and collective experience" is illusory. In short, illusion is dislocation or isolation; truth is consistency and solidarity. It is not that the ultimate bits of consciousness which go to make up any illusion are unreal; but that these right bits of reality have got wrongly placed. They are misfits, and have not gone together coherently to make the kind of mosaic we call truth. Truth, and not reality, is the contradictory of illusion. Mr. Sully does not say this right out and stick to it all through, but he certainly suggests it.

There must be at least a *minimum* of misinterpretation, before there can be an illusion fully fledged; and misinterpretations or illusions fall into two classes, which our author rather questionably calls "passive and active". In the first or "passive," the formation of the misinterpretative image starts from, and is suggested by the sense-impression or initial percept. In the second or "active," it is preformed in the mind. But as the formation of the image may be involuntary (*i.e.*, unaccompanied by sense of effort), just as much when it occurs before the fact of sense-impression, as when by way of suggestion it occurs after, it is difficult to see why the one class of illusions should be called "active" and the other "passive". Better say (1) illusions of suggestion, and (2) of preconception.

In Chapter V. the illusions of art, as the use of the cast shadow, colours of retreat and advance, and the devices of linear and aerial perspective, are here dealt with in a very interesting way; and woodcuts help our apprehension very materially. In this connexion, Mr. Sully differs from Helmholtz, in referring the difficulty of seeing *cameo* as *intaglio* to our much greater familiarity with *cameo* in nature and art, rather than to the casual presence of the cast shadow. The illusion of taking depressed design for raised is easy and frequent for the same reason.

As the authoritative testimony of an expert, well-accustomed to the reflective scrutiny of what passes in his own mind, it is most instructive to come across, at p. 89, Mr. Sully's admission that "what we call a conscious 'sensation' is really compounded of a purely passive impression and the mental activity involved in attending to that and classing it". So, would not the "sensation" be better called an initial percept, inasmuch as such minimum unit of perception is always more than the mere sense-impression by a thought-element, without which Kant's sense-manifold would not be even a blur, and not even in *limine conscientiae*? Mr. Sully inclines one to say with Ferrier that "sensations" or "impressions" pure and simple (*i.e.*, without the thought-element) are simply pure nonsense.

Chapter VI. brings us to illusions of preconception, where the error arises from preoccupation of the mind by preformed images.

And, first, Mr. Sully takes cases where we arbitrarily predetermine ourselves to see something this way rather than that. He gives woodcuts which we may see either as convexity or concavity, as a staircase seen from below or from above, just as we choose. But is this voluntary selection of alternative interpretations illusion at all? We know very well what we are about. But illusion is always unaware of itself. We are indebted, however, to him for enabling us to make these curious experiments, as they admirably illustrate "*involuntary* mental preadjustments". These may be permanent or temporary. Perhaps, we see the effects of an organised and permanent percipient attitude affecting a whole community, in the eccentricities of Chinese art. The illusions of the *seance*, the theatre, the miracle, and the picture-gallery, afford Mr. Sully examples of temporary, personal, and emotional preadjustment and expectancy.

In Chapter VII., Dreams are treated as a kind of perceptive illusion. The old question, "Is sleep ever dreamless?" is reconsidered, and very properly left *sub judice*. Mr. Sully gives many new and odd dreams—some his own—and his explanations are subtle and clear. His most valuable contribution to the science of dreams is, perhaps, an attempt to explain their frequent coherence or organic unity. This is, he thinks, the *crux* of the study, and he offers two solutions:—(1) The *lyrical* or emotional unity of many dreams, where an emotion fixed and dominant allows only images congruous with itself to enter the theatre of the mind. Such a dream is built up on a groundwork of feeling, like a lyrical poem, and finds its harmony and unity therein. There are given here a very naïve dream of a little child and many other fresh illustrations. (2) The *dramatic* unity of dreams, wherein one is, so to speak, one's own playwright and stage-manager. The intellectual impulse to connect and harmonise is not always quite asleep. "The intellectual sentiment of consistency" is often, if not always, awake enough to guide the activities of attention, as it does, when "on entering a room we are plunged in *medias res* of a lively conversation and strive to find a clue to the discussion". This kind of dream-coherence is also illustrated by original dreams—some of them very grotesque.

In Chapter VIII., on illusions about one's empirical or objective self, there is some trenchant criticism of the intuitionist who, careless of reflective analysis, accepts handy "deliverances of consciousness" which fall in with his prepossessions and "common sense"; and at the same time there is a well-argued defence of the introspective or reflex analytic method in psychology, showing that its illusions are eliminated in the growing consensus, by reference to a common body of introspected fact.

The next is a sub-chapter on æsthetic illusions and errors of insight. Insight, æsthetic, or moral and social, is the reconciliation of introspection and external perception. As intellectual truth, so æsthetic and moral consists in endless approximation to universal and permanent consensus. Insight consists in colouring an outline, or filling in a frame, of sense-percepts—looks, words, tones, accents,

gestures—with representations of one's own feelings. It is self-projection. Want of congruity in the result is the measure of its illusion or untruth. If the spiritual picture fits the sensible frame, and the emotional colours agree with each other and the outline, there is true insight into present character. Mr. Sully gives the *rationale* of histrionic illusion, mythopoetic illusion, and social misunderstanding.

In Chapter X. it does not seem to be made quite plain enough that memory pure and simple—*i.e.*, the memory involved in the consciousness of any single least feeling that it may have time-occupancy and exist—does not allow of illusion. Such memory is immediate and self-evident. It is the complex process of recollection that leaves room for illusions. There are many passages in this interesting chapter one would like to quote and comment on, notably two little speculations about dreams invading waking life, and about prenatal or ancestral experiences possibly doing the same; in both cases with illusions or *spectra* of memory for issue.

Here is considered the question of "personal identity," and when Mr. Sully observes that "our ordinary *image* of our past life, if only by omitting the very large fraction passed in sleep in at least an approximately unconscious state, contains an ingredient of illusion," no one will care to deny the justice of the remark. There are immense *lacunae* in the picture of our past life due to periods of sleep and lapses of memory which our imagination vaguely fills up with long stretches of experience of the common type. But consent hesitates when he goes on to say—"My idea of myself as persisting appears to be built up of certain similarities in the succession of my experiences". Is the thought or cognition of the "I" that persists and continues its self-sameness in knowing and thinking, an "idea" or image of sense? Would any heaping up of "similarities" give sameness? There is "a uniting thread of similarity," he says a few pages on. But, a uniting core of sameness is the intuition of mankind. The moments of reflection are continuous, and the act of reflection is ever one and the same.

And consent comes to a dead halt when Mr. Sully further unfolds his meaning and says—"My idea of my persistent self is essentially a collective image representing a relatively unchanging material object,"—endowed with sensibilities, of course. Is that anybody's notion or knowledge of his essential inner continuity and persistent sameness throughout all changes of his empirical or objective ego and environment? When one says "I," does he really mean anything only "relatively unchanging," or anything "material," or any "collective image"? It is doubtful. However, Mr. Sully fortifies his position with very plausible illustrations of "rupture of identity without any transformation of self"—(though that sounds very like a contradiction in terms!)—and ruptures of identity that are transformations of self. Take one or two samples. "The loss of a limb will distinctly give a shock to our consciousness of self"! Would the loss of two limbs or four? It is matter for experiment. "A

patient after fever, when he first looks in the glass, exclaims, I don't know myself." But does "myself" here mean more than "my face," "my body"? To say "I," he must already be self-conscious of self-identity, and he or *she* is only acting a pathetic little play before the mirror. Now take Mr. Sully's strongest case. Naturally, to find it, we must go to bedlam. Suppose, I am quite lost and gone in lunacy, and I think of *my* former self as detached from *my* present, and of *my* "previous life as a kind of unreal dream". Still, I am I: I am thinking and "my"-ing, and parcelling out dead selves and dream selves, and detaching them from myself, and from my present empirical self, and from each other. Where is the breach of self-same continuity of "I"? I may or may not be Queen Anne, but I remain I. Howsoever accident and disease may hack and hew us, it does not appear that the deepest clefts in the empirical ego ever reach to the root of personality. Only the empirical or objective ego is subject to vicissitude.

By "belief" in Chapter XI, Mr. Sully means all representation other than memory, "including anticipations of the future, knowledge of others' past experience, and general knowledge about things". These representations come to simulate the form of immediacy or self-evidence, and then when false are illusions. The chapter treats of erroneous beliefs in others, and in one's self, illusions of self-esteem predetermined by the instinct of self-preservation, illusions of cynicism, misanthropy, optimism, and pessimism, until we get bewildered and lost amidst the fluctuation and endless variety of human belief, and "the mind naturally asks, What are the real limits of illusory cognition, and how can we ever be sure of having got beyond them?"

To this question, Chap. XII. is an answer. Mr. Sully begins by premising "that in so far as any act of cognition is strictly speaking presentative, it does not appear to admit of error". This is a very considerable bit of dry land in our sea of doubt, to begin with. It may be taken to mean that illusions are not unrealities, only realities in the wrong place—realities in the only sense we can attach to the word, namely actual presences in consciousness.

But from such misplacements of realities what prospect of deliverance "from the standpoint of science"? To this Mr. Sully next addresses himself. "The progress of the sciences may be described as a movement towards a new, higher, and more stable consensus of ideas and beliefs." Granted. But what of "permanence" and absolute stability and a "universal" consensus?

Suppose the circle of human sciences perfected in self-consistency. Then the eccentric opinions of the individual would be illusory as against the consensus of mankind. Yes, but then consider the whole human race as one individual, and imagine the realms of *possible* consciousness and knowledge beyond him. What then? The whole accepted and self-consistent body of human knowledge might then stand apart in the isolation and eccentricity of illusion. It seems to me that the hopefulness of science is, in the last resort, based on an

ultimate optimistic faith, that is not irrational, but is ultra-rational, that seeks no justification and could find none.

But there remains "the familiar method of the evolutionist". Can it help us? Mr. Sully has his doubts. There is a vast range of illusion on which "practical efficiency" and "survival of the fittest" have no bearing. Doubtless, communities that act in one mass succeed and survive, and conjoint action implies common belief. Yes, but not necessarily *true* belief. Mr. Sully puts the evolutionist's case very fairly, but the conclusion of the matter is that "Science cannot prove, but must assume the coincidence between permanent common intuitions and objective reality". It assumes an external world, the uniformity of nature, universal causation, &c. Philosophy is asked, if she can justify these assumptions? This is the transition to philosophic reflection. "Philosophy is still a question and not a solution." So, Mr. Sully does not commit himself to any of the philosophies, which he indicates in outline. He is neither "transfigured" absolutist with Mr. Spencer, nor phenomenalist with Mr. Hodgson, nor nihilist with Hume and Mill. The Phenomenalists might complain that he is not quite judicial in such phrases as "real objective existence," which for them would either be tautology and equivalent to "really real reality," or an indication of a tendency to bow down and worship the "unknowable" *Ding-an-sich* of Absolutism. But Mr. Sully does not mean any harm. His sincere desire, as a man of science, is to stand neutral, and he succeeds on the whole. There is one exception however, namely, his criticism of the disintegers of the "Association-philosophy," and rehabilitation, *as against these*, of some of the intuitions of common sense, and the assumptions of science. This is mainly done by taking advantage of the vulnerable spot, that fatal dualism which allows talk of "permanent possibilities of sensation," and of "series of feelings aware of themselves as past and future". Still, there is a tendency on the part of the critic himself to break up the unity of experience, by admitting—perhaps for the sake of argument, but as I think unfortunately—that "objects" are entities or things-in-themselves apart from mind; that in this sense there may be "an objective necessity" corresponding to causality; and by talking of "real objects" as if there could be *unreal* objects, or as if "real objects" must be something less than objects—pure "jects" without any *ob*-verse aspect. But discounting these concessions to popular inadvertency, which are not merely needless but really impossible to make, his criticism in the interests of science and its prospects, as against the nihilism of the Hume-Mill School, is acute, and deserves careful and detailed consideration. There is one very questionable point, however, where he says that origin and genesis do not determine validity and legitimacy. After analysing certain cognitions and sentiments (*e.g.*, belief in "free-will") into their elements, I may not declare they mean no more than their elements. Why not? Does not the "origin" or basis determine the validity and truth of the superstructure? Does not the question of its validity resolve itself into these two :—Does it cover the *whole* base?

Does it cover *no more* than the base? As to the validity or reality of the basal elements themselves, that is the grand universal assumption of popular, scientific, and philosophic thought—a faith in the reality of what is present in consciousness, implicit, inexplicable.

We shall be in substantial accord with Mr. Sully's conclusion, if we say that illusion cannot extend to the whole of knowledge, taken as a whole and without reference to the places and proportions of its constituent parts. To consider it illusory *as a whole*, we must take it as part of a greater whole of knowledge, and refer it to an imaginary world of intelligence beyond man. But *within* the human sphere, which is the range of practice, if for one instant we entertain the doubt that the roots and the best ascertained developments of our knowledge and thought may be illusory, we must the next instant say "Illusion be thou our Truth," and go on to find and determine and correct illusions and errors within this Truth, and by reference to it.

The envelope of science and all activity of human reason, besetting it before and behind, would appear—if these considerations have any weight—to be a faith unreasoning, but not unreasonable, inasmuch as it is the ground of all reason.

We must implicitly believe that whatever is present in consciousness is real, and that on this reality, and out of it as material, Reason can build up Truth and not illusion.

J. BURNS-GIBSON.

Berkeley. By A. CAMPBELL FRASER, LL.D., Professor of Logic and Metaphysics in the University of Edinburgh. ("Philosophical Classics for English Readers.") Edinburgh and London: Blackwood, 1881. Pp. 234.

Though Professor Fraser can truly describe this volume as "an attempt to present for the first time Berkeley's philosophic thought in its organic unity," he does not now for the first time put forward the conception upon which it proceeds. This is that Berkeley, in his first as in his last works, was concerned always to establish a general philosophical conclusion as to the relation of finite minds to the Infinite Mind, and is misrepresented when special importance is attached to the particular psychological doctrines by which he began to indicate the philosophical position. Professor Fraser suggested his view in the plainest possible manner before when, in his handy *Selections*, he placed the full text of the *Principles of Human Knowledge* before a reprint of the earlier *Theory of Vision* from which several points of psychological interest were omitted; and, farther, when, in a second edition, he made way for a fuller exposition of Berkeley's philosophical standing, by withdrawing just those of his original extracts from the *Vindication of the Theory* that are of real psychological importance, as giving precision to the looser argument of the *Theory*. Nor, on these earlier occasions, did he merely suggest his view of the subordinate account that should be made of the

psychological part of Berkeley's writings. He expressed himself as strongly in this sense before as he now does anywhere in the present volume.

The view is, of course, perfectly well justified, and Prof. Fraser could hardly adopt any other in a work that aims at presenting the general characteristics of Berkeley as a philosophical thinker. Yet it is well to note why there should have been so strong a tendency to give prominence to the psychological first-fruits of Berkeley's inquisitive spirit, that his name remains associated with a theory of vision as much as with the doctrine of immaterialism which early and late he was above all concerned to enforce. It can only be due to the thoroughly scientific manner in which he singled out a special psychological question and proceeded to answer it. That he solved as well as raised the question has been much too hastily asserted by Mill and others; but, while at the least he made determinate advances towards its settlement, nothing can rob him of the distinction of having been the first to mark it out in the positive spirit of the scientific psychologist. Though he himself calls it a question of "philosophy" (*Vindication*, § 43), his opposition of it as such to the related questions in "geometry" and "anatomy" would leave no doubt that he means here by philosophy exactly what we now understand as psychology, even if in an earlier paragraph of the *Vindication* (§ 17), he had not formally protested against his opponent's reference "to unknown substances, external causes, agents, or powers," instead of to "ideas" or the simple facts of conscious experience. His treatment of visual perception should be compared with the best work that had been done before him on the subject, as by Descartes, if the full measure of his scientific advance is to be understood.¹ Locke

¹ This is not, however, the opinion of Descartes' latest expositor, Mr. Mahaffy, who writes thus in the volume he has contributed to this same series of "Philosophical Classics":—"How far he [Descartes] was in advance of his day may be seen from the 6th Discourse [of the *Dioptric*], in which he explains the perception of distance, and lays down explicitly all the arguments and illustrations used long afterwards by Berkeley in his *Theory of Vision*. It is impossible that Berkeley can have been ignorant of Descartes' *Dioptric*, and yet how he could claim any originality whatever on the subject is passing strange. The convergence of the optical axes, and how this may be supplied by successive observations with a single eye, the varying colour of the objects, the greater dimness, the number and kind of intervening objects, the uncertainty of all these various indices—all this, which Berkeley urged, is found in Descartes' *Discourse*; nay, even the illustration of the moon looking larger near the horizon than when high in the heavens." (*Descartes*, p. 150.)

What is "passing strange" is how Mr. Mahaffy can have so written. It certainly is, as he says, "impossible that Berkeley can have been ignorant of Descartes' *Dioptric*". Berkeley may be said to have had it for his first object just to overturn the doctrine that he found there. In section after section of the *Theory*, when he is stating the opinion of the "optic writers" before proceeding to refute them, it is plain that he has Descartes' own exposition rather than any other (such as Malebranche's) in view. Take, for example, § 19 where he says—"I know it is a received opinion that,

had meanwhile given a psychological turn to men's thought, though himself little concerned about merely psychological conclusions; and, as evidence of the influence exerted on so many generations of English thinkers since, nothing is more significant than that the first of Locke's successors, even less inclined as his religious purpose made him to stop short at psychology, should have carefully kept back the general philosophical conclusions which he had already matured, till he had first shown the world what kind of particular question in mental science could be resolved by the new way of "ideas".

Though making light of its more immediate import, Prof. Fraser gives at least a general statement of the fundamental arguments of the *Theory of Vision*. He is not in the same way careful to do the like for the argument, again psychological, which Berkeley places in the forefront of the *Principles* and declares to be so all-important in its bearings on the philosophical conclusion of the treatise. Berkeley's explanation of *generality* in knowledge has had too much rather than too little importance attached to it ever since Hume confounded it with his own nominalism; and his ardent polemic against "abstract ideas" proves, upon closer inspection, to have really very little to do with the question between materialism and immaterialism as he argues it in the body of the work. All the same, it is a rather serious omission on Prof. Fraser's part to have made no reference to the negations or assertions of Berkeley upon the subject.¹ Berkeley's

by altering the disposition of the eyes, the mind perceives whether the angle of the optic axes, or the lateral angles comprehended between the interval of the eyes or the optic axes, are made greater or lesser; and that, accordingly, by a kind of natural geometry it judges the point of their intersection to be nearer or farther of". If there could be any doubt that Berkeley has here in view the passage in Descartes' *Dioptric*, VI. 13, where occur the words "ex geometria quadam omnibus innata," the point is settled by his quoting it in a supplementary note to the second edition (1710) of the *Theory*. Descartes, besides, is twice mentioned by name in the *Theory*—once in connexion with that very subject of the low moon out of which Mr. Mahaffy makes his climax. But the serious thing is not that Mr. Mahaffy should have hastily charged Berkeley with ignoring Descartes: it is that he should have represented Berkeley's and Descartes' doctrines as being the same. Berkeley's manifold references or allusions to Descartes are all, as said before, with a view to refutation. If he refers to all or any of the points mentioned by Mr. Mahaffy, it is to show that their true import had been quite misunderstood by Descartes and others—that the facts need to be interpreted as "ideas," *i.e.*, psychologically, if they are to have any significance for the real question of vision. This is the true Berkeleyan note, and there is hardly a trace of it in Descartes' Chapter VI. It may be added that Mr. Mahaffy is particularly unfortunate in his climax. Not only was the question of the moon on the horizon discussed, as Berkeley himself notes, by Gassendi, Hobbes, and others, as well as by Descartes; but if there is one solution more than another that he is concerned to explode it is just Descartes' (as it had been more recently revived by Wallis).

¹ There is just the faintest allusion to it at p. 53, and, again, at p. 60. Two casual references long afterwards (pp. 192-3), in a different connexion, will convey no meaning to the reader who does not know Berkeley at first hand.

own vehemence of statement is hardly to be understood save on the supposition that he thought he had made something like a psychological discovery and was bent on setting it forth. It was truly no great matter; his notion of generalisation applying only to a very limited class of cases, and his point, such as it was, being made at the sacrifice of such insight into the function of language as had begun to be gained by Hobbes and Locke. But it is interesting to see how pertinaciously psychological Berkeley could be on occasion. Whatever else he was, they have not erred who rank him with the psychological thinkers of modern days.

It is needless to dwell on other points in Professor Fraser's exposition. Nobody could write on Berkeley with such fulness of knowledge or could well have used his knowledge to better purpose within the narrow limit assigned. Chapter ii. dealing with "Locke on Ideas and their Causes," for the understanding of Berkeley's start, may just be mentioned as particularly effective. Not less so, in another kind, is the concluding chapter, which draws out the issues of Berkeley's thought in the light of later philosophy. The new biographical matter upon which Prof. Fraser has been able to draw—about eighty letters from Berkeley to Sir John Percival, afterwards Earl of Egmont, running from 1709 to 1730—tells something of the reception awarded to the new doctrine on its first appearance. It also for ever disposes of the legend of Malebranche's death. Berkeley, writing from Paris in Nov. 1713, speaks of being about to see Father Malebranche, but he is now proved to have been in England when the aged Oratorian, some two years later, died.

EDITOR.

Wish and Will. An Introduction to the Psychology of Desire and Volition. By GEORGE LYON TURNER, M.A. London: Longmans, 1880. Pp. 356.

As ethics is the science of human conduct, most writers on this subject from the Stoics downwards have commenced their inquiries with an attempt to define, analyse, and classify the mental phenomena which accompany or determine human actions. The principal of these phenomena are of course Desire and Volition, which under the designation of "Wish and Will," it is the object of Mr. Turner's work to examine.

Mr. Turner is neither a pioneer nor a champion; he does not aspire to build up a system or to defend one; but although his book does not contain much original research or subtle dialectic, it is an easy and agreeable introduction to the study of Moral Philosophy. As the treatise is evidently intended for beginners, the reader is required to bring very little previous knowledge to its understanding. Mr. Turner's psychology follows implicitly the lines laid down in Sir William Hamilton's *Lectures*, and this is the only work with which any familiarity is assumed.

Notwithstanding the many recent attempts which have been made to bring the psychology of ethics within the sphere of positive science, Mr. Turner seems to delight in the less rigorous methods of the older metaphysics. Pervaded by a decided theological tone, his speculations are thus apt to run into mysticism. He talks about "the pose of the spirit," without vouchsafing any explanation as to the meaning such a phrase is intended to convey. But, since he says that in metaphysics metaphor is the nearest approach to truth we ought to expect, perhaps he does not attach any precise meaning at all to the expression. The first four chapters of his work are devoted to an analysis of the mental attitude called Desire. On the vexed question whether or not the direct object of desire must always be a feeling, he decides in the affirmative. What we desire or avoid is always some pleasurable or painful feeling, and not the external cause of it. It is certainly difficult to determine, after a desire has once been followed by the pleasure of its gratification, whether the object of all succeeding desires of the same kind is this pleasure or not. Kant, of course, emphatically maintains the existence of what he calls intellectual *desires*, entirely apart from "*feeling*" or "*interest*". Such a doctrine is absolutely indispensable as a support to his ethical system. But Mr. Turner seems unacquainted with the opinions of Kant, nor does he appear to perceive how fatal to the doctrine of the independence of the Will, is the dependence of desire upon feeling. According to Mr. Turner there are *two* kinds of Desire, *subjective* and *objective*. Subjective desires again may be divided into those which are incited by the memory of a past pleasure, and those which aim at the continuation of a present agreeable feeling. A too "minute philosopher" might perhaps demur to this distinction, on the ground that memory is as necessary in prompting the continuation of a present pleasure as in reviving a past. No doubt, Mr. Turner was thinking of spontaneous movement for the maintenance of a present pleasurable feeling, which Professor Bain makes a prime factor in nascent Volition. In animal life, by the by, is not spontaneous movement for the avoidance of pain, a more obtrusive fact than involuntary action for the prolongation of pleasure? We should certainly say that if "Desire is the child of Feeling," as Mr. Turner reiterates, it is of a painful and not of an agreeable feeling. Pain may, in fact, be held to be the cradle of consciousness. Mr. Turner does not consider the question whether the mental attitude of Desire itself is pleasurable or painful. It will be replied, perhaps, that this would depend upon the degree in which hope or despair of fruition mingles with the desire. But, how is it that gambling has such a fascination for some dispositions? Here hope and fear seem to be in equilibrium, and yet the pleasure intense. Objective desires are subdivided into *five* Classes: (1) Corporeal, or Physical; (2) Intellectual-Corporeal, or *Æsthetic*; (3) Purely Intellectual; (4) Moral, or Ethical; (5) Spiritual, or Religious. Of course, this division is perfectly arbitrary, and we should think not very manageable when put to the test.

The major part of Mr. Turner's book is devoted to the discussion of

the nature and functions of the Will. Volition, he says, is the child of Desire, as Desire is the offspring of Feeling; he seems, however, to shrink from any precise definition of the Will; in fact, he somewhat ingeniously escapes the necessity of such a definition by saying that the Will being not an entity cannot be defined. He, however, describes the functions of the Will as fourfold, Evocative, Directive, Sustentative, and Intensifying. After considering the relation of Volition to the other mental faculties as classified by Hamilton, he next proceeds to compare Will with Law. Here we enter on the happy hunting-ground of all speculative moralists, past and present. Mr. Turner considers Law as the authoritative expression of somebody's will, but he does not seem to grapple very closely with the real problems at issue. Are the cycles of natural phenomena and the events of history determined by intelligent or unintelligent agency? Are there more than one such agency? If so, are they independent or dependent with regard to each other? The answers to these questions have formed the staple of philosophy ever since men began to wonder and to inquire. We know that modern thought is inclined to reduce all power to a single unintelligent physical agency generating the order of the Universe by a process of Evolution. The polar opposite doctrine to this would be the Idealism of Malebranche, Berkeley and others; both, however, being monistic theories, *i.e.*, admitting only one agency. The most common opinion is that which assumes the operation of three agencies, the Divine, the Human, and the Natural; with many variations of doctrine as to their mutual independence or dependence. Mr. Turner seems to favour a somewhat dualistic position. He proclaims the separate efficiency of a divine and human Will, but the apparent power in nature he attributes, as we understand him, to the Divine Will, constantly manifesting itself as physical law or the orderly sequence of phenomena. He lays much emphasis on the subordination of the unintelligent laws of the material universe, to the intelligent Will that prescribes them. Touching the relation of the human to the Divine Will, we are not quite clear as to Mr. Turner's views. He seems disinclined to commit himself to either side of the Arminian and Calvinist polemic. With respect, however, to the absolute and entire independence of the human will, as understood in the controversy between Liberty and Determinism, Mr. Turner avows himself an unhesitating and uncompromising upholder of the Freedom of the Will. On this point he dogmatizes for the first time, and to support this doctrine we must suppose that the whole of his work is designed, since he winds up the concluding chapter with the following peroration.

"The ontological significance of the phenomena of Volition, then, when carefully and candidly examined, is the establishment of the position, that the word 'I' is the name of a *real* spiritual entity, that the controlling agent in Volition is a *spiritual* Personality which has an existence distinct and distinguishable from the mental phenomena and processes it controls, and from the physical organism which it employs for the attainment and effectuation of objects, freely chosen from alternative courses, and decided upon in the exercise of this regal power of choice."

The method adopted by Mr. Turner in defending his position against the Determinists is something the same as Mansel's. Both take refuge in a metaphysical morass, far out of range of the artillery of scientific reasoning. Within the province of phenomena science may argue about the dependence of effect and cause. But such considerations do not apply to the domain of noumena, if only we could get there. According to Mr. Turner, in the impenetrable veil of phenomena by which the real and noumenal is hidden, there is one little rift through which the metaphysical eye can peep behind the scenes. In the exercise of Volition we come upon the real noumenal self or Ego guiding and directing the material organism in which it is encased. This Ego being a noumenon is absolved from all obligation to obey phenomenal laws, and disports itself emancipated from circumstances, and reckless of consequences. We do not conceive such a noumenal entity would prove a very trustworthy pilot amidst the storms and quicksands of life. Kant's intuition of duty with its implication of power seems a safer basis for a system of independent morality.

T. W. LEVIN.

Studies in Deductive Logic: A Manual for Students. By W. STANLEY JEVONS, LL.D. (Edinb.), M.A. (Lond.), F.R.S. London: Macmillan, 1880. Pp. xxviii., 304.

Prof. Jevons's new contribution to logical literature, in every way a most helpful work, consists of two quite distinct and even to some extent opposed parts. In the first and larger portion, the author gives, in alternate chapters of brief exposition and copious illustration, a summary of the older Aristotelian logic with numerous examples, partly solved as specimens, partly for solution by the student. In the second portion, a very complete survey is given of the peculiar modification of symbolical logic on which Prof. Jevons has expended much labour, together with a selection of examples for practice. The two portions of the work, one is inclined to say, do not hang well together. Beyond all question, the collection of examples here given for exercise in the main forms of the Aristotelian logic is more elaborate and more aptly chosen than in any other similar work with which we are acquainted. But the reader is continually brought to feel that the writer regards these logical forms as antiquated and so far incoherent; the difficulties which present themselves in elementary logic are handled in a perfunctory manner; and in several instances injustice appears to be done to these older doctrines. No writer with a conception of logic and logical method radically distinct from that involved in the examples he is bringing forward is likely to treat the subject with perfect fairness, and something of this defect is undoubtedly to be traced in the first portion of Prof. Jevons's *Studies*. His theory of the nature of thought—for on some theory, however unexpressed, the developments even of symbolical forms must necessarily proceed—is quite opposed to that which lies at the foundation

of the Aristotelian logic with its modern improvements, and the opposition, which prevents a perfectly unbiassed view, has led Prof. Jevons in more than one instance to misinterpret certain of the older logical processes and to treat with undue severity modern exponents of them.

The first chapter of the *Studies* presents us with an instance of what has just been indicated as a defect in the work. The doctrine of Terms is, indeed, as Prof. Jevons says, "a composite and for the most part extra-logical body of doctrine," but the consideration of that which lies at the foundation of the distinctions of terms, the varied forms and formal relations of notions, is an indispensable portion of logic. Doubtless, if we proceed to discuss terms from the basis supplied by popular ideas and grammar, we are in a region quite extra-logical, but no sound theory of judgment and reasoning is possible apart from a careful investigation of the elementary factors of the form of knowledge,—our notions of individual things, of classes, properties, and relations. Terms can only be considered logically as representing or symbolising these forms of knowledge, and the consideration of them becomes extra-logical only when we fail to keep in mind that language rarely corresponds to exact thinking. Much of the difficulty one feels in connexion with Prof. Jevons's own view of logic arises from the fact that all the shades of significance expressed in the various forms of notions are abolished; that *singular*, *general*, and *collective* lose their peculiar meanings; and that propositions are made to express an arbitrary simplification in no way corresponding to the real order of thought. Naturally enough, one finds in this first chapter a certain impatience of the older logical distinctions and a looseness of definition which deprive it of much of its value for the student. Prof. Jevons reiterates with increased confidence an opinion in which he is well nigh-singular "that proper names are connotative;" puts forward without any hesitation a doctrine which might well call for some defence,—"that adjectives are the names of the things to which they are added"; and, in defiance of his own explanation, calls the term *drop of oil* "collective as regards the particles of oil". The existence of so many debatable doctrines is sufficient to show that the analysis of the thought which underlies and gives significance to terms is an indispensable portion of logical theory, and is extremely well suited for furnishing exercise to the reasoning powers of the student.

In the chapter on Conversion and Immediate Inference, there seems a tendency to disregard the real nature of the processes as forms of thought. The impossibility of converting the *O* proposition seems to the author "to constitute a real blot in the ancient logic". But if one considers fairly what was meant by conversion in the older logic, and why it was called a process of inference, one can see not only that this doctrine is correct, but that no other was possible. The problem of conversion is briefly:—Given as datum that a certain subject has or has not a certain attribute or quality or group of attributes or qualities, what can be inferred regarding the

individuals characterised by the possession of this attribute or group of attributes? Given, *e.g.*, that All S is P, what can be inferred of the class P as regards the attributes characteristic of S? The only possible inference is that at least some of the class P have the attributes characteristic of S. Now in the O proposition, the datum is that some at least of the class S have not the attributes characteristic of P; and from this datum no conclusion whatever can be drawn as to whether any or all of the class P are characterised by the attributes of S. The older logic supplies readily enough an inference regarding the individuals characterised as not possessing the attributes of P, but neither the older logic nor any modern system would be correct in describing this as a form of conversion. The difficulty which prevents complete comprehension of so elementary a doctrine is, in truth, the want of any satisfactory analysis of the meaning of negative notions and negative judgments, and one would have been glad had Prof. Jevons, whose system abounds in such negative logical quantities, extended any theory of their nature. It may be noted here, by the way, that the first example of so-called conversion of the O judgment, worked on p. 37, is formally wrong.

Of the remaining chapters in this first portion of the *Studies*, XII. on Formal and Material Truth and Falsity, and XIV. on Intension, are the most interesting. In the first, there is considerable confusion, arising from the want of any definite statement as to what the author understands by the terms *truth* and *falsity*. The doctrine that a judgment is logically to be viewed as false when it is made "without sufficient grounds" appears quite indefensible, unless under some peculiar definition of falsity. For if one estimates by reference to sufficiency of ground, the same judgment might readily be at once true and false. Each judgment, in short, would be relative to the state of mind of the individual thinker, and the question of its truth or falsity would be purely psychological. We do not see, moreover, for what reason a change is proposed respecting the significance of the time-honoured term *contradictory*. What Prof. Jevons has in mind in the statement that the "contradictory of a proposition is any proposition which involves the falsity of the original, but is not the sole condition of it" is something quite distinct from the older logical theory of Opposition of Judgments. He is really thinking of the opposition between the several terms of a complete disjunction. A and A' (= not-A) make up a complete disjunction; but if A be a complex notion, involving *a* and *b* as constituent marks, then A' is a series of notions, *ab'* + *a'b* + *a'b'*, required as complement of *ab* to make up the logical universe. Even in such a series there can be given nothing which in the least corresponds to what the author apparently regards as negating a particular relation of two terms, *viz.*, the assertion that no relation at all exists between them. This *want of knowledge* is not a logical datum at all, and one is surprised to find it introduced alongside of such strenuous declarations regarding the purely formal character of logical processes. The example which is worked on p. 117 is not a good instance, for the

proposition there selected is a complex assertion, and the alternative supposed to be neglected is really the *contrary*, not the *contradictory*. Now, the *contrary*, as the older logicians very well knew, may be false or true, when the original is given as false, which, so far as I can make out, is precisely Prof. Jevons's contention.

Chapter XIV., on Intension, I find extreme difficulty in following. No satisfactory explanation is offered of the distinction implied by this term, and the discussion is for the most part a somewhat acrimonious criticism of Sir W. Hamilton's logical doctrines. It has never seemed to me that the application by Hamilton of the distinction between Extension and Comprehension to the forms of Judgment and Reasoning was well-founded; at the same time there has never appeared to be any real difficulty in following the application, provided that the starting-point is fairly kept in mind. Hamilton proceeds to the treatment of judgment and thence to reasoning on the basis of his analysis of the general notion or concept, and as he thought the act of judging to be the comparison of two concepts, he concluded that in the forms of judgment there must appear the peculiarities of concepts as extensive and intensive quantities. That such a theory of judgment is fundamentally erroneous, we think can be shown to demonstration; that Hamilton was successful in carrying out his doctrine, supposing it to be correct, we think more than doubtful; but any just and fair criticism of the details of his logical developments must keep in mind the fact that he did regard the judgment as dealing with notions. Now, we cannot avoid the feeling that Prof. Jevons has overlooked this point in Hamilton's doctrine; that he employs the terms Extension and Intension, as they would not have been employed by Hamilton; and consequently finds that Hamilton's mode of stating judgments differs widely from what he himself would adopt. But this ought not to have led him to misread so much in Hamilton that slight effort would have made intelligible, and to express his condemnation in such fashion as as is here done. There is almost, one would say, a wilful obstinacy in the treatment of the examples quoted from Hamilton, and it is quite surprising that the author should have permitted himself to endorse a wrong-headed criticism by Prof. Bowen, the author of a very excellent American text-book. Bowen—to put the matter in its briefest form—chooses arbitrarily and in defiance of Hamilton's technical terms, to read a syllogism, given by Hamilton as in Comprehension, as a syllogism in Extension, symbolises the relations involved by circles, and naturally finds that the conclusion is erroneous. But he immediately becomes aware of the misinterpretation he has given, retracts the accusation of error against Hamilton's syllogism, and remarks, with quite superfluous gravity, that relations of Comprehension cannot be symbolised by circles.

Inadvertently Prof. Jevons raises a question which has previously been noted in MIND, *viz.*, how far the reading in Intension is applicable to negative and particular judgments. But it appears to me that he quite misses the true answer to this question, which, of

course, can be discussed only under the assumption, for the moment, that there is any necessity for so reading judgments. One would be inclined to mark as inaccurate all the intensive judgments given by him on pp. 128-9; for in all of them the expression *all the qualities of* is used as synonymous with the *qualities making up the Intension of*. In truth Hamilton himself seems to have missed his way in carrying over into judgments the forms of relation between the Extensions and the Intensions of compared notions. He ought to have seen that just as the possible relations of two notions in Extension,—Co-extension, Inclusion, Exclusion, and Intersection,—correspond on his view to modes of judgment in Extension, so the modes of judgment in Intension must have their interpretation supplied by the possible relations of notions in Intension. These possible relations he had classified, but the only one ever referred to, when judgments are under discussion, is that called by him Involution, the correlative in Intension to the extensive relation of Inclusion. Thus All S is P, interpreted in Extension, is—The sphere of the notion P contains the sphere of the notion S; interpreted in Intension, is—The significance or comprehension of the notion S involves the significance or comprehension of the notion P. Now this relation of Involution does not cover all possible relations of comprehension, just as Inclusion does not cover all possible relations of extension. The particular judgment Some S is P would correspond, on Hamilton's view, to Intersection in extension, and would be interpreted to mean, Some part of the spheres of the notions S and P are common. The corresponding relation in Intension would be that of Compatibility: The significance or comprehension of the notion S is compatible with, or capable of being united with, the significance or comprehension of the notion P. This relation of Compatibility retains the peculiar meaning of the particular judgment; it asserts that the constituent attributes S and P are capable of being united; there are SP's, but it does not assert that S involves P, or that every S is an SP. So the relation of Co-extension—All S is all P = The spheres of the notions S and P coincide—has, as its correlative in Intension, the relation of *equipollence* or reciprocal Involution. Hamilton, however, missed the opportunity for carrying out consistently his doctrine of the twofold aspect of notions, and in place of regarding the readings in Extension and Intension as two modes of interpreting a judgment, came to view them as constituting two distinct kinds of judgment, and so blundered into his theory of the Quantified Predicate.

It may be noted here that Prof. Jevons, in the chapter just commented on, at last accepts the view of the nature of the judgment which must always have seemed to his critics the only possible resource for him, although he has been reluctant to give it formal statement. He thinks that "a proposition in Extension expresses the identity of a thing or class of things with the same thing or class under another designation" and that "a proposition in Intension expresses an identity between the attributes of one member and those of the other". The two statements appear to differ slightly, but if we

consider, in respect to the second, that the *one* member and *the other*, being *identical*, can differ only in name, we see that the difference is only in expression, and that, for Prof. Jevons, the judgment is essentially the expression of the identity of meaning of two names. As a name has or may have two meanings, extensive and intensive, we may read the identity in two ways, but identity it remains. Now we cannot but think that this doctrine is still open to the criticism so often passed upon the same view as expressed by Hobbes. It assumes as the essence of the judgment the result which follows when the judgment has been made, and supposes that a particular consequence of any judgment is that which the judgment itself implies. Take, *e.g.*, the proposition *The grass is green*. As the result of this judgment, the subject, which *quâ* subject was indeterminate, has become enriched or is determined by the predicate attribute, *green*: the *grass* is, for us, *green grass*, and there is unquestionably identity of thought between *grass* and *green grass*. But the expression of this identity is as unquestionably not the import or essential form of the judgment; it is only a mode in which I may interpret the result of my judgment and which may be serviceable for testing the validity of inferences from it. All judgments give as consequences more complex or richer notions of the things judged about, but the form or essence of the act of judging is not the expression of an identity between the less and the more complex notions. To suppose so is to reverse the whole order of the progress of knowledge.

On the basis of this view it would appear that the symbolical processes worked out in the second part of the *Studies* have undoubtedly their justification as convenient means for expressing the full consequences of our judgments, for analysing the value of the data for inference supplied by them, and, like other symbolical methods, for giving command over highly complicated forms of assertion, but that they neither necessitate nor rest upon the peculiar theory of the nature of the judgment expressed here and throughout by Prof. Jevons. What one would specially deprecate is the attempt to make these symbolical methods co-extensive with the body of logical doctrine, and to leave over, to Psychology or what not, the important discussions of the foundations of logical forms. A logic which divorces itself from the general theory of knowledge is in my view an imperfect and partial doctrine.

The survey which is given, in the second part of the *Studies*, of the peculiar symbolical method adopted by Prof. Jevons is extremely full and interesting, and the further developments here brought forward, in particular the Logical Index, which is a marvel of ingenious labour, undoubtedly call for attention from experts in the subject. It is impossible to notice in any detail the matters that suggest themselves in connexion with it, but I would note especially the chapters on the so-called Numerical Logic and on the Measure of Logical Force as raising, though not completely discussing, problems of great importance. I altogether agree with Prof. Jevons in his view of Numerical Propositions and would indeed go further, and

banish them entirely from the province of logic. They are mathematical in character and can be dealt with only by mathematical methods. As regards the Measurement of Logical Force, I think that the problem raised is treated rather briefly, but that, if one may judge from a somewhat hurried consideration, the questions involved seem to belong entirely to the general doctrine of combinations. The *conditions* of the combinations are doubtless logical in character, but the method to be applied is purely algebraical or numerical. It would have added much to the value of the work had a general statement been given of the author's views regarding symbolical methods, but it is perhaps unfair to ask that this should be found in what is professedly an exercise-book for students.

R. ADAMSON.

The Nicomachean Ethics of Aristotle. Translated by F. H. PETERS, M.A., Fellow of University College, Oxford. London: Kegan Paul, 1881. Pp. 354.

Mr. Peters is to be congratulated on having performed a difficult task with a great measure of success. His translation of the part shows a knowledge of Aristotle's system as a whole, and he has the gift of brevity. Mr. Williams's translation, with which Mr. Peters's most directly challenges comparison, though vigorous and excellently fitted to give the "English Reader"—if there be such a person—a view of Aristotle's Moral Philosophy, is not so delicately *en rapport* as Mr. Peters's with the style of an author in whose works almost every sentence lives with the life of the whole system; hence while Mr. Peters can trust to the general impression produced by his translation of the entire work, Mr. Williams is often tempted to explain difficulties on the spot by paraphrastic renderings. Mr. Peters's work is thus considerably shorter than Mr. Williams's. In this brevity we seem to have a measure of the success with which Mr. Peters has grappled with a difficult task. Schopenhauer never said a more superficial thing than when he said that Aristotle thought pen in hand. If so, why is he so brief and so hard to translate?

In translating or explaining a work like the *Ethics*, different people will of course hold different opinions with regard to special points and passages; and the translator seems to be in a more disadvantageous position as regards his critics than the annotator, because he must commit himself without comment to a definite rendering. In the Introduction which Mr. Peters promises, he will doubtless take occasion to defend several of his renderings; and we do not think he will find the task as a whole a difficult one. While the general style of his work is elegant and lucid (the paragraph-divisions are very suggestively arranged), his treatment of a disputed or difficult passage seldom fails to recommend itself on grounds connected with the context, and on the general principles of Aristotelian philology. Book vii., ch. 3, may be taken as a good example of Mr. Peters's treatment of the easy and the difficult.

Where the general character of a work is so high, it may seem ungracious to point out what appear to be small blemishes; but perhaps, on the whole, some good may be done by the following notes which relate to renderings with which the present writer is not satisfied:—

P. 7: “and on the ground of their virtue”. Rather, “*i.e.* on the ground of their virtue,” *καί* having an illative force.

P. 17: “straight line.” Rather, “right angle” (see *Index Arist.* under *εὐθεΐα* and *ὀρθή*).

P. 42: “Everything psychical, etc.” (ii. 5, 1). This is saying too much. *Εὐδαιμονία* and *αἱ κατ’ ἀρετὴν ἐνέργειαι* (x. 3, 1) are not *ποιότητες*, and yet are psychical. He here confines himself to psychical *ποιότητες*. Rather, “Every psychical quality, etc.”

P. 55: “tack as we cannot run”. Menander (as quoted by Stobaeus *Flor.* vol. ii., p. 349, Teubner) seems to be conclusive against this rendering of *κατὰ τὸν δεύτερον πλοῦν*. Stobaeus writes—*Μενάνδρου ἐκ Θρασυλέοντος—ὁ δεύτερος πλοῦς ἐστὶ δῆπου λεγόμενος, ἂν ἀποτύχῃ τις οὐρίον κώπαισι πλεῖν*.

P. 63: “The ignorance that makes an act involuntary is not this ignorance of the principles which should determine preference (this constitutes vice)—not, I say, this ignorance of the universal, etc.” Surely (iii. 1, 15) ἡ καθόλου (ἀγνοία) introduced by οὐδέ is distinguished from ἡ ἐν τῇ προαιρέσει ἀγνοία—*i.e.*, the ignorance of the ἀκόλαστος is distinguished from that of the ἀκρατής whose προαίρεσις or choice of means is thwarted by present pleasure, although his end is good. This seems to us the easier way of meeting the undoubted difficulties of the passage; but we are fully sensible that the words ἀλλὰ τῆς μοχθηρίας are in Mr. Peters’s favour, although we think that the οὐδ’ immediately following them is against him. The words ψέγονται γὰρ διὰ τὴ ταύτην too seem to imply that ἡ καθόλου is not merely a repetition of ἡ ἐν τῇ προαιρέσει.

P. 66: “The continent man, on the other hand, deliberately chooses what he does, but does not desire it.” Better, “acts from deliberate choice, not from mere desire.”

P. 66: “but there cannot be a conflict between desire and desire.” Surely there can. The word ἐναντιοῦται (iii. 2. 5.) implies that the opposition between one desire and another desire is not *contrary* opposition—they are not ἐν τῷ αὐτῷ γένει, *i.e.*, concerned with the same object.

P. 149: “by the penalty.” Cf. *Rassow Forsch.* p. 122, whose view seems to be correct.

P. 152: “In these *voluntary* transactions” (v. 4. 14). Here Mr Peters agrees with Ramsauer, who suggests that τῶν παρὰ τὸ ἐκούσιον = ἐν τοῖς ἐκούσιοις. This suggestion, most improbable in itself, seems to us to deprive the § 14 of its point.

P. 152: “with his (the patient’s) consent” (v. 5. 5). Rather, “voluntarily (by the agent).”

P. 184: “For we may say roundly that whatever is necessary is eternal”. Τὰ ἐξ ἀνάγκης ὄντα ἀπλῶς, Things necessary *per se*, are opposed to τὰ καθ’ ὑπόθεσιν ἐξ ἀνάγκης—the premisses of a dialectical

sylogism which are necessary *pro tempore* not *per se*. Eustratius *ad loc.* (vi. 3, 2) says—ἀπλῶς δὲ λέγομεν ἐξ ἀνάγκης ὅσα μὴ καθ' ὑπόθεσιν ἐξ ἀνάγκης, ὅσον τὸ καθήσθαι τινα· ἐστ' ἂν κἀθηται ὁ καθήμενος ἐξ ἀνάγκης εἶναι λέγομεν τὸ καθήσθαι αὐτὸν ἀλλ' οὐχὶ ἀπλῶς. Mathematical truths are τὰ ἐξ ἀνάγκης ἀπλῶς.

P. 193: "though it admits of great variety"—"i.e., varying as the good varies" (foot-note). Rather, "presents a large specific difference," διαφορά (vi. 8, 4) being suggested by the foregoing εἶδος, *species*. Knowledge of the good for man is the *genus* which has two *species* (1) knowledge of what is good for others—πολιτική, and (2) of what is good for one's self—φρόνησις in the narrow or specific sense. This latter species is so striking (ἔχει διαφορὰν πολλήν) that it has appropriated the generic term φρόνησις to itself, while consequently the other species—knowledge of the good of others—is deprived of its proper name, and nicknamed πολυπραγμοσύνη.

P. 198: "just as the learner in science is said to show intelligence when he makes use of the scientific knowledge which he hears from his teacher" (vi. 10, 3). τὸ μανθάνειν here means 'to understand' rather than 'to learn,' and τῇ ἐπιστήμῃ is the knowledge (general or special) by means of which an intelligent person understands what another says—e.g., a man's knowledge of German enables him to understand a conversation in that language. So the συνετός understands or appreciates moral or political advice when he hears it.

P. 200: "on the one hand in connexion with deductions [of general truths in morals and politics] reason apprehends the unalterable first principles". Surely the author here speaks of the νοῦς θεωρητικός, and the ὅροι ἀκίνητοι καὶ πρῶτοι are the definitions of mathematics, not the principles of morals and politics which are not necessary—at least ἀπλῶς.

P. 258: "for here there is similarity and the rest". ὅμοια surely cannot mean 'similarity'. ὅμοιοι the reading of K^b. and of El. (Cambridge) seems almost certainly to be right (viii. 3, 7).

P. 327: "most motions are incomplete" (x. 4, 3). αἱ πολλαὶ is rather "the various moments or parts (each incomplete) of the whole (complete) motion".

P. 353: "These compendia which the sophists make do not seem even to make a man able to heal" (x. 9, 21). The compendia here mentioned are *medical* compendia made by medical men, not the political compendia made by the sophists. The mere perusal of medical works does not make a man a good doctor; nor does the perusal of the political compilations of the sophists make a man a practical politician.

The foregoing notes, as will be observed, refer solely to matters of detail. Indeed it is only in these, and a very few other such matters, that we are not satisfied with Mr. Peters's work. Of his general grasp of Aristotle (we use the wide word advisedly) and of his technical skill as a translator, we cannot speak too highly. We venture to predict for his work a long and useful career.

J. A. STEWART.

Die Sprache des Kindes. Eine Anregung zur Erforschung des Gegenstandes. Von Dr. FRITZ SCHULTZE. (No. 10 of "Darwinistische Schriften".) Leipzig: Günther, 1880. Pp. 46.

This little work is a study of the beginnings of articulate speech in children, mainly from a physiological point of view: the author considers that the pursuit of such inquiries may in course of time be found to throw considerable light on the wider problems of historical philology and the origin of language. Special attention is paid to the order in which the particular vowel and consonant sounds are produced. Among consonants the labials and linguals come first, in Dr. Schultze's opinion; not only because they are the easiest in themselves, but because the muscular apparatus of the lips and tongue has the start of the rest of the vocal organs by being exercised in sucking from the very first. Hence the general similarity of the childish names for father and mother among widely different races of men. Dr. Schultze works out in some detail the doctrine that the formation of sounds in learning to speak always takes the line of physiological least resistance; and he points out that a similar law may be traced in the corruptions of adult language in the mouths of children who have not yet mastered the sounds. "The child substitutes for the still unpronounceable sound, whether vowel or consonant, the most nearly allied sound which it can produce with less trouble; but if this too is still beyond its powers, the sound is just omitted altogether." Thus we may work out a "Lautverschiebungs- oder Verstümmelungs- oder Verwandlungsgesetz der Kindersprache". At the same time Dr. Schultze guards himself against premature conclusions in detail: he observes that the materials in the way of collected observation are as yet insufficient, and that owing to inherited physical aptitudes the relative physiological difficulty of particular sounds may be, and probably is, very different in different races. According to Dr. Schultze's observations, the order in which consonants are produced by German children is as follows: first group, P, B, M, F, W, D, N, (T seems omitted by a slip of the pen); second, L, S; third, Ch, J (= Eng. Y); then Sch, then R, and last of all Ng, K, and G. The present writer's observation of an English child gave not quite similar results: first came M, B, D, W, N; T, P, somewhat later; K and G were formed nearly or quite as soon as W, V, and F; Sh came before S, the palatals and aspirates much later, and R last of all. The earliest vowel-scale, as noted by Dr. Schultze and others in Germany, was *ä, o, u*; I found it to be *á, a* (not the Continental short *a*, but that of Indian languages, the obscure *Urvocal* of unemphasised *that* or *but*), *i*: *o* came a good deal later. I noted many sounds, both vowel and consonant, which do not occur in adult English at all. Dr. Schultze cites, besides a good deal of German literature on the subject, Mr. Darwin's and M. Taine's work: he does not seem to be acquainted with the not unimportant observations of M. Bernard Perez and M. Egger.

Perhaps I may be allowed to take this occasion as a sufficiently

relevant one for continuing my own notes on infants' language. The subject of the present observations is a boy.

The first certainly articulate sounds were noted at the age of nine months: *da da*, *na na*, and soon afterwards *ba ba*, *wá wá*. Contentment seemed to be expressed by *da da*, the contrary by *na na*. Laughter was fully developed at five months, and the expression of distinct emotions by the voice (though not articulately) at about eight months.

At about 13 months a vocabulary began to be formed, which increased rapidly. At 15 months it stood, so far as I could be sure of it, as follows. The list is probably incomplete, but it is safer to err on the side of omission. The doubling of a final consonant denotes a strong dwelling on the sound: other signs are used as in my previous notes (MIND XI.).

ba wa. Dog (recognised in picture).

bá. Bath, ball, box: different shades of sound for each meaning.

bm or *brm*. General expression of desire: this was soon dropped.

bwá. Brush, also *bash*, on seeing crumbs on the floor.

dú dú. As proper name for his father.

dah. Dog.

dan. Down (generalised to ask for change of position in any respect).

dáh. Door.

de ti. Jessie (his nurse's name).

denn. Again (to ask for action to be repeated).

dlam. Drum.

dok-tah. Doctor (in picture-book).

dawá. Drawer.

fawá. Flower (including all kinds of foliage).

gon. gone away.

ji ji or *zi zi*. ("Gee-gee").

káh. Cock (a toy containing sugar-plums).

kik'n or *k'k'n*. Kitchen.

'm 'm. Mule (habitually seen drawing milk-cart).

pé pé. Play (music).

peh peh. Paper.

penm. Pen or pencil (constantly demanded as plaything): this became "pen" a few months later.

plá. Please.

puť or *pf*. Cat.

's 's. Yes; assent in general. Later *es es*. The full sound of "yes" was acquired only at about two years old.

ti ti or *ti ta*. Clock.

tik. Stick.

In the following months words were fast added, and dissyllables came into use. At 1 year 8-9 months the boy spoke of himself as "Dak" (for "Jack"—short *a* sound as in Fr. *Jacques*), and began to make short sentences, as: "up please dada"; "cuppy please play with". "No thank you" was a favourite phrase. The tendency

to generalise terms was well marked. "Coffee" (from coffee-mill) was a name for everything exhibiting or suggesting circular motion—a pepper-mill, a music-stool, a hanging gas-lamp. "Moon" or "moon shining," sometimes also "sun shining," was applied to every bright round object, such as a watch-case. About two months after this a comparatively long and elaborate sentence is reported: "forky dada say no—spoon may."

At the age of 2 years 1-2 months the pronoun *I* is mastered; which in the case of the girl whose progress in language I formerly recorded did not happen till considerably later. Sentences are formed with greater ease, and marked pleasure is taken in repeating them. Singular and plural are distinguished in nouns, but the verb is still oftener than not an uninflected crude form, *e.g.*, the sentence "dada come home" may be future, optative, imperative, or preterite, according to circumstances.

The inflected forms of the auxiliary and other very common verbs are, as one might expect, the first acquired. Here is a continuous sentence uttered at the age of 2 years 1½ months, and containing an inflexion together with so much syntax as is involved in the distinct combination of protasis and apodosis: "When dada done tea, kind dada bring milk Jacky." Some pride was taken in the formation of this, as it was repeated two or three times with evident pleasure. Two or three months later questions are constantly asked, often with apparent indifference whether they are answered or not, and perhaps, therefore, merely as an exercise in conversation. Narrative is also attempted, but so far with more verbal repetition of what elders have already said than independent expression in words of the child's own choice.

F. POLLOCK.

VIII.—NEW BOOKS.

[These Notes do not exclude, when they are not intentionally preliminary to, Critical Notices later on.]

Anthropology: An Introduction to the Study of Man and Civilisation. By EDWARD B. TYLOR, D.C.L., F.R.S. With Illustrations. London: Macmillan, 1881. Pp. 448.

There cannot be two opinions as to the art with which Mr. Tylor has managed in this book to open out a connected view of the various lines of investigation now grouped under the name of Anthropology, and to summarise the general results attained by the multitude of recent inquirers. Though he aims, within his limits, at a statement only of representative facts, the number that he has been able to mass together in a form as interesting as it is instructive, betrays the sure touch of a master. It is truly one of the fullest of books. Among so many subjects, all treated with admirable skill, if one may be singled out for special mention here, it should be Language. The

two chapters (pp. 114-52) which Mr. Tylor devotes to Language in itself, seem to us to contain an almost unexceptionable statement of the best results of modern science, psychological and other, on the subject. We will note further only the particular conception of Anthropology which has guided the author in writing this introduction to its study. He would add it to the curriculum of education as a means of giving connexion and unity to the multitude of scattered subjects that are now taught without reference to their use for the purposes of life. There is not one of "the branches of education in knowledge and art . . . which may not be the easier and better learnt for knowing its history and place in the general science of Man". The topics treated, in order, with this view are—Man, ancient and modern; Man and other Animals; Races of Mankind; Language; Language and Race; Writing; Arts of Life (pp. 182-286); Arts of Pleasure; Science; The Spirit-World; History of Mythology; Society.

Sight: An Exposition of the Principles of Monocular and Binocular Vision. By JOSEPH LE CONTE, LL.D., Professor of Geology and Natural History in the University of California. With Numerous Illustrations. ("International Scientific Series.") London: Kegan Paul & Co., 1881.

This is, in its way, a noteworthy book. The author has been all his life interested in the subject of vision, and has long been occupied in making independent investigation of it from the physical and physiological side. Some of his results are new, while his exposition and mode of illustration are never other than original. He has not failed in his aim of producing a book that should "be intelligible and interesting to the thoughtful general reader, and at the same time profitable to even the most advanced specialist". Especially in dealing with the problems of binocular vision, he has given a more exact determination of some of the data than may be found elsewhere. At the same time, he certainly cannot be said to have reached the level of general interpretation that is maintained by an investigator like Helmholtz, who never neglects psychological considerations; or by one like Wundt, who always keeps them uppermost in his thought. What can be done for the explanation of vision without psychological analysis, the author has done; but not more. Not that he refuses to take account of psychology. It is done, however, in such wise as may be judged from sentences like these:—

"If, therefore, these nerve-fibres [olfactory] are irritated in any way, even mechanically, they (!) do not *feel* but *perceive* an odour."

"It is wholly by virtue of this supplementary instrument [specialised peripheral structures in ear and eye] that we are able to hear not only sound but *music*, or to see not only light but *objects*." (Note the analogy—music-objects.)

"The direct data [of sight] are only *light*, its *intensity*, *colour*, and *direction*. These are incapable of further analysis, and are therefore simple sensations." (Note the distinction of the first three, and the addition of such a fourth to them, as all alike "simple sensations".)

Bacon. By THOMAS FOWLER, M.A., F.S.A., Professor of Logic in the University of Oxford; Fellow of Lincoln College. ("English Philosophers.") London: Sampson Low, 1881. Pp. 202.

Hartley and James Mill. By GEORGE SPENCER BOWER, B.A., of the Inner Temple, Barrister-at-Law; late Scholar of New College, Oxford. ("English Philosophers.") London: Sampson Low, 1881. Pp. 250.

The rule of this Series is to issue two volumes simultaneously at brief intervals. In the first of the present couple, Prof. Fowler seeks "to present the character of the revolution which Bacon endeavoured to effect in scientific method as well as the nature of his philosophical opinions generally, in a form intelligible and interesting to readers who have no acquaintance with logic or philosophy". A biographical sketch and general account of the works (filling together about a third of the volume) are followed by critical summaries of Bacon's survey of the sciences and reform of scientific method (pp. 66-158); and two concluding chapters are given to his philosophical and religious opinions, and influence on philosophy and science. More particularly in these last chapters, Prof. Fowler makes, as he says, free use of what he has already written in the Introduction to his edition of the *Novum Organum*, reproducing to a great extent *verbatim*. Some of his points, when first presented, were challenged in this journal (XIII, 125), but apparently he has seen no reason to change his mind on any of them, beyond inserting a passage (p. 166) which allows that at least Locke had doubts about the 'faculty'-hypothesis. (What important English thinker from Hobbes had not?) At p. 195 Huyghens and Boerhaave are hastily set down as Germans.

Mr. Bower, after his biographical sections, gives, in the largest part of his work (nearly 200 pp.), a face-to-face exposition of the more characteristic doctrines of Hartley and James Mill. In choosing this way of presentation he has not considered his own ease, and the result of his labour is all the more valuable, though there is necessarily a less distinct impression given of each man's work. But it would have been more to the purpose for the understanding of that Associationist movement in philosophy in which the two thinkers here conjoined have figured so prominently, if Mr. Bower—instead of sweeping up into his last part on "the value and influence of their opinions" everything in later writing that can (or cannot) be connected with them—had more accurately and sufficiently defined the relation of Hartley's thought to that of his predecessors, and more especially of his contemporary Hume. It needs to be explained how, after Locke, there began to be noted under the name of Association a general principle of mental synthesis, instead of a mere aspect of the phenomena of memory. Even if Berkeley's advances towards the wider conception had been left unmentioned, some pains should have been taken to explain how Hume, a few years before Hartley, was giving Association its widest possible application (though not in the same spirit of serious construction). All that Mr. Bower has to say

about Hume, beyond noting a reference to him by James Mill (p. 43), is the incidental remark (p. 225), that it is not "certain (according to Coleridge) that there was any originality in Hume's *Essay on Association*!" What he otherwise states, there or earlier, of Hartley's fore-runners is of no value.

The Metaphysics of the School. By THOMAS HARPER, S.J. Vol. II. London: Macmillan, 1881. Pp. 757.

Father Harper continues his stupendous undertaking begun in 1879. His present volume, considerably larger than the first, covers the "Principles of Being" and the first two of the "Causes of Being"—Material Cause and Formal Cause. Efficient Cause will occupy the greater part of the next volume, and not till this appears will he be able fully to keep his promise of showing the harmony that exists between the metaphysics of the School and the latest physical discoveries. He makes, however, considerable progress towards this end in the present volume, not only in running observations, but in a special Appendix (pp. 730-48) where he brings together the teaching of Aquinas touching the genesis of the material universe, and concludes "that there is nothing in the *principle* of natural evolution which is not in strict accordance with the teaching of St. Thomas and the Fathers of the Church. On the contrary, the latter [meaning St. Augustine] taught it some fifteen hundred years ago." It is otherwise part of Father Harper's plan to confront the scholastic doctrine with the dicta of later philosophers, and in the present volume this is more expressly done by the interpolation of a critical section (pp. 90-142) on the synthetical *a priori* judgments of Kant, led up to through a short review of Descartes and a longer review of Hume. There is no want of vigour or intelligence here in the author's polemic. To say nothing of his own speculative power, the care and labour he bestows on the general exposition of the scholastic doctrines are truly astonishing. It will be the duty of some courageous spirit, one day, to essay the task of tracking Father Harper along his whole course, and to give some compendious report, in this journal, on the vast regions of thought he has opened up for the spiritual reclamation of erring moderns. Meanwhile it is only possible to note that he is on his way, and has now accomplished half his task.

Kant and his English Critics. A Comparison of Critical and Empirical Philosophy. By JOHN WATSON, M.A., LL.D., Professor of Moral Philosophy in Queen's University, Kingston, Canada. Glasgow: Maclehose, 1881. Pp. 402.

This work (the first chapter of which, in slightly different form, appeared in *Mind* XII.) will be critically reviewed later on. The author describes it in the following terms:—

"In this work an attempt is made to point out the misconceptions of its real nature that still prevent Kant's theory of knowledge from being estimated on its merits, notwithstanding the large amount of light recently cast upon it, and to show that the *Critique of Pure Reason* raises, and parti-

ally solves, a problem that English Empirical Psychology can hardly be said to touch. . . . I have thought it advisable to prepare the way for a defence of the Critical theory of knowledge, and for a comparison of it with Empirical Psychology, by a short statement of its main positions as contained in the *Kritik der reinen Vernunft* and the corresponding sections of the *Prolegomena*, together with the *Metaphysische Anfangsgründe der Naturwissenschaft*. . . . To the 'Refutation of Idealism,' the principles of 'Substance' and 'Causality' and the 'Metaphysic of Nature,' in its relation to Mr. Spencer's *First Principles*, a good deal of space is . . . allotted. The direct criticisms which I examine are those of Mr. Balfour, Mr. Sidgwick and Dr. Hutchison Stirling. . . . By far the larger part of the work is occupied with the exposition and defence of Kant's system, and with the contrast of Criticism and Empiricism in their fundamental doctrines. In the last three chapters, however, an attempt is made to show that while right in principle, the theory of knowledge presented in the *Critique* is not altogether free from incoherent elements incompatible with its unity and completeness."

The Creed of Science, Religious, Moral and Social. By WILLIAM GRAHAM, M.A., Author of *Idealism: An Essay, Metaphysical and Critical*. London: Kegan Paul, 1881. Pp. 412.

This is a work of unmistakable power on subjects of the highest and widest interest. The following sentences from the author's Introduction will, for the present, give some notion of its scope.

"I propose in the following pages to give the chief conclusions reached by Modern Science on the central questions of religion, morals and society—to state, in a word, the general creed of Science; and, as the scientific faith may still be fallible or of unequal degrees of merit, I propose, in the second place, to offer some criticism on some of its more doubtful articles with a view to their reconsideration and revision. . . . In the absence of any single and universally acknowledged authority on all articles of faith and doctrine, I have taken the consensus of scientific opinion amongst the few highest authorities on each particular article, and I have treated this as the orthodox teaching of Science—as what would have been the decision had all such authorities met together in Council to fix the faith. . . . On all questions concerning man himself, his virtues and vices, and the uniformity, such as it is, which his life in society presents, we are properly referred on the part of science to a different order of specialists—to the psychologist, the moralist, the sociologist, to such authorities as Mill, or Bain, or Herbert Spencer, who, in addition to their writings on the philosophy or logic of the sciences, have dealt expressly and from the scientific point of view with ethical and social questions. . . . Our new scientific philosophies must be content . . . to be valued by their powers of recommending themselves to the most developed human reason, including the universal human interests; and when they have been thus tried and valued, I venture to predict that none of our new interpretations of the universe . . . will give full and final satisfaction."

Hindū Philosophy. The Sāṅkhya Kārikā of Īśvara Kṛishṇa. An Exposition of the System of Kapila. With an Appendix on the Nyāya and Vaiśeshika Systems. By JOHN DAVIES, M.A. (Cantab.), Member of the Royal Asiatic Society. London: Trübner, 1881. Pp. 151.

The work here translated is probably the oldest extant exposition of the philosophic system, called Sankhya, of Kapila, who is believed to have lived in the 7th or 8th century, B.C. The system contains, according to the translator, nearly all that India has produced in the department of pure philosophy; and "is the earliest attempt on record to give an answer, from reason alone, to the mysterious questions which arise in every thoughtful mind about the origin of the world, the nature and relations of man and his future destiny". Iswara Krishna's exposition was previously translated into English by H. T. Colebrooke. The present new rendering is provided with considerable comments and notes, material as well as verbal; the translator being especially concerned to bring out the affinities between the philosophies of Kapila on the one hand, and of Spinoza, Schopenhauer and Von Hartmann on the other. The thought of the last two, he considers, "is mainly a reproduction of the philosophic system of Kapila in its materialistic part, presented in a more elaborate form, but on the same fundamental lines". A short supplementary account is given also of the Hindu logic and physic.

Materialism Ancient and Modern. By a late FELLOW of Trinity College, Cambridge. London: Macmillan, 1881. Pp. 43.

The outcome of this short essay in which the different forms of materialism are reviewed may be gathered from the following extract—

"Comparing then the material hypothesis with that of an intelligent power, we find that, while the first accounts for some material phenomena but fails entirely to explain the existence of sensation or any other mental phenomenon, the second, if adopted, is sufficient to account for all phenomena, both mental and material.

If the author had followed the recent discussions on "Mind-stuff," he would hardly have written what stands on p. 27.

Definitions and Axioms of a Future Science of Existence or Ontology.
A Study by KARL FRIEDRICH FRÖBEL. London and Edinburgh:
Williams & Norgate, 1881. Pp. 160.

The author makes the following statement:—

"An attempt is made in this 'Study' to explain on reasonable grounds—not by presumed 'Causes'—the existence of stars, of the different chemical substances composing them, the geometrical regularity of the form and structure of crystals, the origin and evolution of cells, the growth of plants, the spontaneous motions and the senses of animals, the principle of all life—not as a product of 'living forces,' but—as the natural realisation of the eternal laws of space, time, and being, considered as the creative and evolving powers in material Nature;—all this, on the assumed certainty that this world, the material object of consciousness and reason, is not a dream, but a given reality, the most certain of all certainties. This Study also tries to explain the reasonable relations of Mind and Body, of Spirit and Matter, and the rational conviction of the possibility of a future personal life after death. Moral power is defined as the realised union of the three natural powers in the human Self or Ego."

Aspects of German Culture. By GRANVILLE STANLEY HALL, Ph.D., Harvard University, Lecturer on Contemporary German Philosophers and on Pedagogy. Boston: Osgood, 1881. Pp. 320.

Under this title Mr. G. S. Hall, who is well-known to the readers of MIND, brings together, with some of his contributions to this journal, a number of letters on various topics, social as well as philosophical, addressed by him to the New York *Nation* during a residence in Germany from 1878 to 1880. The collection is heterogeneous enough, but perhaps all the better fitted to give an impression of the manifold activity of the German mind in these days. Probably no other English-speaking student of psychology and philosophy has acquired half as much familiarity as Mr. Hall with every phase of the present intellectual movement in Germany, and his brightly-written sketches are full of instruction not easily to be had otherwise.

L'Apperception du Corps humain par la Conscience. Par ALEXIS BERTRAND, Professeur agrégé de Philosophie au Lycée de Dijon, Docteur ès-Lettres. ("Bibliothèque de Philosophie Contemporaine.") Paris: Germer Baillière, 1881. Pp. 328.

The author, grounding chiefly on Maine de Biran, asserts that there is an echo of the bodily life in the mind—a continual and vague sentiment of the organism in consciousness; and proceeds, in this reference, to review the later psychological results that have been attained from the physiological side. In five parts he deals successively with Sense of the Body and Consciousness (subjective physiology, sense of the body); Life (structure and functions of the body, polyzoist animism); Sensation (sensorial activity, localisation of sensation); Effort (effort and movement, effort and brain); The Real Ego (hallucination of the sense of the body, with general conclusions). His work is a good specimen of the kind of psychological monograph now being produced nowhere more actively than in France.

L'Être Social. Par ARMAND HAYEM. Paris: Germer Baillière, 1881. Pp. 214.

An answer to a question propounded by the *Académie des Sciences morales et politiques*—to investigate the reasons of the difference that may exist in the opinions and moral sentiments of the different parts of society. The answer was not considered to be sufficiently directed to the question; but the question was indefinite enough. The author seeks his solution in a general consideration of "the organic and constitutive causes of the social being," supplemented by a view of the varieties of individual existence.

De l'Esprit Moderne: ou Essai d'un nouveau Discours sur la Méthode. Par DANOVER. Paris: Germer Baillière, 1881. Pp. 119.

The author describes the "modern method" in the usual terms as a method of slow generalisation which can never arrive at any but relative principles; but, farther on, concludes the existence of a final

principle on the ground of the liberty of human volition. However, such final principle, though it exists, may not in the scholastic thought, be directly attained; everywhere we seize only relative forms. So in morals and politics, to which he is chiefly concerned to apply his reasonings, he maintains that we can no longer find an absolute principle: the interpretation of the precepts or rules of morality is progressive and will go on developing.

Vers d'un Philosophe. Par M. GUYAU. Paris: Germer Baillière, 1881. Pp. 208.

M. Guyau, who has written two important works that have been noticed at length in MIND (*La Morale d'Épicure* and *La Morale anglaise contemporaine*), has taken now to verse for the expression of his thought, and justifies himself thus in some words of preface:

"We think that the only way of maintaining the position of poetry in face of science, is to seek truth in it as in science, but under another form and by other ways. . . . It will be objected that the abstract conceptions of modern philosophy and science are not suited to the language of verse. We answer that philosophy also, on certain of its sides, touches the concretest of things and the subject of most passionate interest, in dealing with our very existence and our destiny. Philosophy tends in these days to take the place of religion, which formerly was one of the great sources of poetry."

Two of M. Guyau's pieces may more especially be noted—"Illusion féconde" and "Analyse spectrale"; the one being the poem of human, the other of cosmical, destiny.

Grundzüge der physiologischen Psychologie. Von WILHELM WUNDT, Professor an der Universität zu Leipzig. Zweite völlig umgearbeitete Auflage. 2 Bde. Leipzig: W. Engelmann, 1880. Pp. 500, 472.

Of all the books on psychology this work is undoubtedly the most indispensable to the student who seeks to become familiar with the science in its present phase. The new edition is a great improvement upon its predecessor, published seven years ago; not only is it "brought down to date," but a good deal of problematic anatomy is replaced by matter better ascertained and more directly psychological. Moreover, even what is in substance common to the two editions has been in many cases recast, and is more clearly stated in the second. On several points of importance, too, the author's views have advanced in the interim, though, unfortunately, he has not definitely indicated these changes either in his preface or in the course of the work. The most noteworthy additions are those in the latter half of the work, which now forms a separate volume. What was before a single chapter of "Concluding Reflections" has grown into a separate section, treating of the metaphysical hypotheses concerning the nature of the soul, and of the psychological and psychophysical standpoints with the respective theories of our internal experience to which they lead. The two sections preceding this last are also considerably expanded, viz., that entitled "Of Consciousness and the Train of

Ideas," and that entitled "Of the Will and its External Manifestations". In the former of these, Professor Wundt describes at length a number of interesting experiments carried on by himself and some of his pupils to determine the time required for the "apperception" or recognition of presentations of varying degrees of complexity, as also the further time required in order that such a presentation may call up another associated with it. In experiments of this nature, Professor Wundt had already acquired considerable reputation: his new researches make it plain that a thorough knowledge of the time occupied by different elementary mental processes would do much to establish the psychology of these processes on an exacter basis. The forms of Association, which were disposed of in a very summary fashion in the first edition, now get a roomy chapter all to themselves. In the section on Volition and Movement, the author has added a new chapter, in which he treats of the development of the Will, and goes out of his way to discuss Free-will and Determinism.

The changes in the first volume are, on the whole, of less account. The numerous and important books and memoirs upon neural physiology and anatomy that have appeared since 1873 are laid under contribution; but upon the questions in dispute between Goltz on the one side and Munk and Ferrier on the other, Professor Wundt gives a very uncertain sound, and in truth the time for a decision is not yet. In like manner the recent literature of Weber's Law is ably summarised and discussed, and the author's own views on this matter restated and readjusted.

The printing and illustrations, of which there are 180, are, as would be expected from the publisher, excellently done. [J. W.]

Logik: Drei Bücher Vom Denken, vom Untersuchen und vom Erkennen. Von HERMANN LOTZE. 2te Auflage. Leipzig: Hirzel, 1880. Pp. 608.

Professor Lotze has had to issue this second edition of the first part of his "System of Philosophy," begun in 1874, before the appearance of the third and concluding part; the second part, *Metaphysik*, appeared in 1879. The new edition of the *Logik*, otherwise little changed, includes a Note (pp. 256-69) upon Logical Calculus, occupied chiefly with Boole, but touching also on Professor Jevons. The author is a strenuous supporter of the traditional logic, as superior in principle to the newer methods and not inferior in practical efficiency when handled with sufficient freedom. An English translation of the *Logik* and the *Metaphysik*, made by some Oxford admirers of Lotze's philosophical genius, is understood to be in such a forward state that it may see the light before many months; and criticism in these pages of either volume may most conveniently be deferred till the translation appears. It will be a great service done to the cause of philosophy in this country, if, as there is good reason to expect, the translators give an adequate rendering of the "System" with which the great German thinker is crowning the work of his life.

Die Naturgesetze und ihr Zusammenhang mit den Prinzipien der abstrakten Wissenschaften. Für Naturforscher, Mathematiker, Logiker, Philosophen und alle mathematisch gebildeten Denker. Von Dr. HERMANN SCHEFFLER. 3 Theile; 8 Lieferungen. Leipzig: Foerster, 1876-80.

Mr. Venn has begun to draw attention to this stupendous work by noting in his *Symbolic Logic* that the author in Part III. (1880), when he comes to "Logical Laws," has worked out a system of diagrammatic notation similar to that which he had himself independently devised. Farther notice of this part of Dr. Scheffler's work, "The Theory of Knowledge or Logical Laws," which extends to nearly a thousand pages, is reserved. Of the other parts, covering some three thousand pages, it must suffice to say that they deal with "The Theory of Intuition or Mathematical Laws," and "The Theory of Appearance or Physical Laws." He addresses equally "natural inquirers, mathematicians, logicians, philosophers, and all mathematically-trained thinkers." His order of treatment is determined by the stage of development reached by the different departments of knowledge. Hence, though he is firmly of opinion that mathematics rests upon logic and logic upon philosophy, he begins with mathematical principles, and only after he has applied them in explanation of the physical laws takes up logic, to end last of all with philosophy.

Schopenhauer's Erlösungslehre. Von Dr. RAPHAEL KOEBER. Berlin: Duncker, 1881. Pp. 51.

Objective Idealism is not, as Hartmann thinks, an undeveloped element in Schopenhauer's philosophy by the side of the four main elements which he notes as idealism, realism, spiritualism, materialism; but is the true, though purposely concealed, basis of the system, and alone gives meaning to its central doctrine of Deliverance.

IX.—MISCELLANEOUS.

Mr. Venn sends the following:—

"In a list of references in my recently-published *Symbolic Logic*, I mentioned an essay by Castillon, *Sur un nouvel Algorithme logique* (Berlin, 1803), but added that every effort to procure a sight of it had failed. The words were scarcely printed off when accident brought the work into my hands, and I now find that it was first published in the *Memoirs of the Berlin Academy*.

"Regarded as a development of Symbolic Logic generally, Castillon's results are scanty and of little value; but they seem of real interest and importance in one respect, inasmuch as they represent the most consistent attempt I have ever seen to carry out the *intensive* interpretation of terms and propositions. Many have professed to do this, and some have made

partial attempts in this way ; but Castillon seems almost unique in facing the consequences of the undertaking. Starting with the assumption that all logic consists in the analysis and synthesis of our ideas or concepts, he finds a place for *two* connecting symbols only, + and —. These stand of course, approximately speaking, for the operations which Boole and his followers indicate by \times and \div , whilst that aggregation and exception of classes which the latter mark by the signs of addition and subtraction can find no place here. Thus the Universal Affirmative, All S is A, is written $S = A + M$, indicating that the subject concept S is composed of the predicate concept A, together with an unknown number of other attributes marked by M. Similarly the Universal Negative, No S is A, is written $S = -A + M$, indicating that the predicate concept A is to be removed or omitted in order to compose the subject.

"So far there is nothing peculiar ; similar forms to these had been employed or proposed by Leibnitz and by Lambert (the logical works of Lambert being the instigating cause of Castillon's paper). Where he shows his originality is in facing the consequences of this mode of interpretation. For instance, most logicians are familiar with the fact that, whilst an intensive interpretation answers well enough with analytical judgments, it is at least difficult to fit it in with synthetic accidental judgments. Castillon boldly faces the difficulty by the declaration that "naturellement tout jugement est nécessaire ou apodictique. . . . Notre algorithmique semble également le prouver par la simple inspection : $S = A + M$, $S = -A + M$ indique tout uniment, que penser S, c'est penser M avec ou sans A". A very convenient simplification certainly. So with the same difficulty in the case of particular propositions. Castillon rejects some of these as "illusaires," the only ones which he regards as "jugements particuliers réels" being those which are derived or derivable, by conversion, from universals. "Tout jugement affirmatif particulier est donc au fond, et précisément parlant, un jugement universel, dans lequel l'attribut (le concept le plus simple, le concept abstrait ou composant), a été mis à la place du sujet (à la place du concept plus composé). . . . Indiquant donc le jugement affirmatif universel par $S = A + M$, le particulier sera $A = S - M$, suffisamment distingué du jugement négatif $S = -A + M$, duquel il est déjà distingué par les places qu'occupent S et M." I was personally interested in these conclusions myself, as having already suggested that they seemed the only ones which were rigidly consistent, though I could not find that they had been expressly adopted by any writer on logic."

Mr. Alfred Barratt, author of *Physical Ethics*, and a valued contributor to this journal, died on the 18th of May, after a short illness, in his 37th year. He had been appointed Secretary to the Oxford University Commission last autumn, and threw himself into the work with characteristic ardour. The strain of finishing the draft Report of the Commission, in the last days of April, proved too much for his strength, impaired as this may have been by excessive study in his earlier years. On the 1st of May, paralytic symptoms declared themselves, and in little more than a fortnight the end came. Mr. Barratt was born at Heald Grove near Manchester on the 12th of July, 1844 ; his father being of a Cheshire family and a solicitor by profession. He displayed extraordinary precocity as a boy. Before he was fourteen he could read Hebrew, and he had also picked up from a teacher at his first school some knowledge of Arabic and

Persian. Later on, besides being a most accomplished classical scholar, he had four modern languages at his command—German, French, Italian and Spanish. He was educated at Rugby before passing, at the age of 18, to Balliol College, Oxford. At the University, his career was of unexampled brilliancy. Elected Balliol Scholar in his first term, he gained a double First at Moderations and at the end passed out First in no less than three Schools—*Literae Humaniores*, Mathematics, and Law and History. He was afterwards elected Fellow of Brasenose, and obtained as his final academic distinction the Eldon Law Scholarship in 1870. In 1871 he was called to the bar as a member of Lincoln's Inn, and thenceforward practised as an equity draftsman and conveyancer, also in the Chancery Court of the Duchy of Lancaster. It was earlier, in 1869, that he produced his Essay on *Physical Ethics or the Science of Action*; but professional pursuits did not divert his interest from philosophy, as the readers of MIND know. His articles on "The 'Suppression' of Egoism" and "Ethics and Politics," with his Note on "Ethics and Psychogony," in Nos. VI., VIII., and X. respectively, showed him eager and able to maintain his early positions in face of newer thought; and he has besides left behind him a considerable quantity of philosophical writing in a more or less unfinished state. His *Physical Ethics* was, upon any showing, no common piece of work to come from a young man of twenty-five just emerging from the University; and it has not failed to leave a mark on the thought of the time. Even more remarkable than the knowledge and intellectual acuteness are the fearless logic and honesty of purpose which it everywhere displays. With Mr. Barratt's varied intellectual gifts and acquisitions was joined a strong love of art, and he had a character of singular charm. Many warmly attached friends mourn his untimely fate. He leaves a young wife and a little daughter.

The death has also to be recorded of M. E. Littré, which took place on the 2nd of June. He was born at Paris, on the 1st February, 1801. The services he rendered to Comte personally are well known. Nobody of the same distinction gave so complete adhesion as he to the ideas of Comte as far as contained in the *Cours de Philosophie Positive*. In this relation, he published a second edition of the *Cours* in 1864, and also in the same year wrote his admirable work of biography and exposition, *Auguste Comte et la Philosophie Positive*. He has taken part from the first in the direction of the bi-monthly periodical *La Philosophie Positive*, now in its thirteenth year (2nd series), and written constantly, upon the most varied topics, in its pages. His *Dictionnaire de la Langue Française* (1863-77)—a work in which he has equalled, if not surpassed, the labours of any other single man—may also be set down as a philosophical achievement.

It is proposed in the United States to celebrate the centenary of Kant's *Kritik der reinen Vernunft* by a philosophical Congress, to be held in the first week of August at Concord, Mass., when a number

of papers bearing on Kant's philosophy will be read and discussed. In England the appearance of the great book will be commemorated by the publication of a new translation. It will be the first English translation of the original text (Riga, 1781); the changes and additions of the later editions being given in the form of supplements. The translation has been entrusted to Prof. Max Müller, and there will be a historical Introduction by Prof. Noiré. Messrs. Macmillan will be the publishers.

Herr W. Schlötel, of Strasburg, has written to us to protest, as a German, against what he considers to be an unwarrantable impeachment by a German of Professor Jevons's credit for originality. Professor Lotze, in the criticism on Boole, which he has incorporated with the second edition of his *Logik* (see above, p. 446), after solving one of Boole's problems by a method similar to that of Prof. Jevons's *Abecedarium*, goes on to remark that the method did not need to be discovered by Prof. Jevons, but lay to hand in the traditional rules for classification. Herr Schlötel indignantly asks, in words which he has addressed also to the *Vierteljahrsschrift für Wiss. Philosophie*, V. 2, when did anybody before Prof. Jevons in 1870 work out and publish the method of the *Abecedarium* and its application to syllogistic reasoning? To this question it may be replied that a similar method is plainly set forth in Christian August Semler's *Versuch über die combinatorische Methode*, published at Dresden in 1811, as noted by Mr. Venn at p. 351 of his *Symbolic Logic*. But whether Prof. Lotze had Semler in view does not appear; and, in any case, Prof. Jevons's claim to originality is, of course, unaffected.

Under the title of *Rassegna Critica di Opere Filosofiche, Scientifiche e Letterarie*, there has been founded at Naples, from the beginning of this year, a new bi-monthly periodical, which, to judge by the first two numbers, promises to be very vigorously conducted. It is under the direction of Professor Andrea Angiulli, and is designed to keep Italian readers abreast of the general intellectual movement of Europe. English philosophical authors, who will send their works to Professor Angiulli (82 Via Nuova Capodimonte, Naples), may rely on having them carefully reviewed.

Professor Lotze, who for so many years has lent distinction to the University of Göttingen, has accepted the Chair of Philosophy in Berlin, vacated by the death of the late Professor Harms.

M. Renouvier has given in *La Critique Philosophique*, X. 11-17, a translation of Mr. Shadworth Hodgson's criticism on his *Logic* in MIND XXI., appending replies and new elucidations in foot-notes; and will proceed to do the same by the article on his *Psychology* in MIND XXII. He warmly acknowledges the merit of Mr. Hodgson's exposition and criticism.

A committee has been formed for the purpose of erecting a monument of Berkeley in his cathedral of Cloyne. Thus far it is proposed "to remove the present organ screen, which is architecturally a great disfigurement to the building, and to substitute one of a distinctly monumental character, with a statue of the Bishop as the prominent feature". The movement is already supported by many influential names, and Professor Fraser represents philosophy on the committee. The following are honorary secretaries, any of whom will be happy to receive subscriptions in aid of the memorial:—Rev. T. Moore, LL.D., Precentor of Cloyne, Middleton College, Co. Cork; R. Caulfield, LL.D., F.S.A., Librarian, Queen's College, Cork; R. Bagwell, M.A., Innislonagh, Clonmel; Rev. H. Kingsmill Moore, M.A., Church Place, Fermoy, Co. Cork.

We learn, with deep regret, as we go to press, the death of Mr. John Ferguson McLennan, the accomplished author of *Primitive Marriage* (1865), and *Studies in Ancient History* (including reprint of *Primitive Marriage*, 1876). He died on the 16th of June, at Hayescommon, Kent. Of late years, he has resided mostly at Algiers, for his health.

THE JOURNAL OF SPECULATIVE PHILOSOPHY. Vol. XIV., No. 4. J. H. Stirling—Criticism of Kant's main principles. J. Watson—Kant's Principles of Judgment. H. K. Jones—Philosophic Outlines. Notes and Discussions (G. S. Bower—The Philosophical Element in Shelley).

REVUE PHILOSOPHIQUE. VI^{me} Année, No. 4. A. Fouillée—Critique de la morale de Kant (i.). J. Delboeuf—Le dernier livre de G. H. Lewes (fin). H. Spencer—Les chefs politiques. Analyses et Comptes-rendus. Rev. des Périod. No. 5. J. Darmesteter—Les cosmogonies aryennes. T. V. Charpentier—Philosophes contemporains: M. Cournot. G. Le Bon—Problèmes anthropologiques: (i.) La question des criminels. Ch. Richet—La mémoire élémentaire. Analyses et Comptes-rendus (McCosh, *The Emotions*, &c.). Notices bibliographiques. Correspondance (P. Tannery, E. Evellin—Sur l'infini mathématique). No. 6. G. Guérault—Du rôle du mouvement dans les émotions esthétiques. A. Fouillée—Critique de la morale de Kant (ii.). H. Spencer—Des gouvernements composés. A. Naville—L'amour propre: Étude psychologique. Analyses. Rev. des Périod.

LA CRITIQUE PHILOSOPHIQUE. X^{me} Année, Nos. 7-20. F. Pillon—Les vues générales de M. Huxley sur la philosophie des sciences et sur la philosophie biologique (7). C. Renouvier—Politique et socialisme: La question du progrès (viii.) Condorcet (8); (ix.) Les espérances sociales de Condorcet (10); Une thèse sur l'infini (17); La doctrine de M. Evellin sur l'objectivité des idées géométriques (18). A. Penjon—Une leçon sur l'association des idées (9). J. Milsand—La science et ses droits (15, 18, 20).

LA FILOSOFIA DELLE SCUOLE ITALIANE. Vol. XXII. Disp. 3. F. Bertinaria—Il problema critico esaminato dalla Filosofia trascendente. P. D'Ercole—Le idee cosmologiche positive di R. Ardigò. L. Ferri—Il

Positivismo e la Metafisica. Bibliografia, &c. Vol. XXIII. Disp. 1. T. Mamiani—Intorno alla Sintesi ultima del Sapere e dell' Essere, lettera al prof. Bertinaria. P. D'Ercole—*La morale dei Positivisti* di R. Ardigò. T. Ronconi—Dell' Induzione Aristotelica e Baconiana. L. Ferri—Due parole alla *Civiltà Cattolica*. Bibliografia, &c. Disp. 2. F. Bonatelli—Filosofia della Storia: La Storia come fattore della coltura umana. G. Jandelli—Sociologia: Il precursore di Malthus. Bibliografia. P. d'Ercole—Sulle Idee, risposta al Prof. Ferri.

ZEITSCHRIFT FÜR PHILOSOPHIE, &c. Bd. LXXVIII., Heft 2. E. Pfeiderer—Kantischer Kritizismus u. Englische Philosophie (Schluss). J. L. A. Koch—Ueber das Gedächtniss; mit Bemerkungen zu dessen Pathologie. E. Westerburg—Schopenhauer's Kritik der Kantischen Kategorienlehre (ii.). Recensionen (R. Adamson, *Kant's Philosophie*; A. Bain, *Erziehung als Wissenschaft*, &c.). Bibliographie.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE. Bd. V., Heft 2. E. Laas—Vergeltung u. Zurechnung (i.). F. Tönnies—Anmerkungen über die Philosophie des Hobbes (Schluss). E. Kraefelin—Ueber Trugwahrnehmungen (i.). A. v. Leclair—Kritischer Idealismus u. Positivismus: Eine Entgegnung. H. Vaihnger—Erwiderung. Anzeigen. Selbstanzeigen, &c.

ZEITSCHRIFT FÜR VÖLKERPSYCHOLOGIE U. SPRACHWISSENSCHAFT. Bd. XIII., Heft 1, 2. G. H. Müller—Ueber den Accusativ u. sein Verhältniss zu den übrigen Casus: Ein Beitrag zur indogermanischen Casuslehre. F. Misteli—Ueber Analogiebildungen insbesondere im Ugrischen. Beurtheilungen.

PHILOSOPHISCHE MONATSHEFTE. Bd. XVII., Heft 1, 2. Von Kirchmann—Ueber Plato's *Parmenides*. Th. Lipps—Die Aufgabe der Erkenntnistheorie u. die Wundt'sche Logik (ii.). Recensionen u. Anzeigen. Literaturbericht. Controverse zwischen Prof. Michelet u. Prof. Weis. Bibliographie, &c. Heft 3. J. Volkelt—Ueber die logischen Schwierigkeiten in der einfachsten Form der Begriffsbildung. Recensionen. Literaturbericht. Bibliographie, &c. Heft 4, 5. C. Schaarschmidt—Lessing u. Kant: Ein kleines Gedenkblatt. Th. Lipps—Die Aufgabe der Erkenntnistheorie, &c. (iii.). E. v. Hartmann—Bahnsen's *Realdialektik*. Recensionen. Literaturbericht. Bibliographie, &c.

Other Books, &c., received:—A. Macfarlane, *Algebra of Relationship*, II, (Reprint from *Proc. Roy. Soc. Edinb.*), pp. 8. E. R. Conder, *The Basis of Faith: A Critical Survey of the Grounds of Christian Theism*, 2nd Ed. revised, London (Hodder and Stoughton), pp. 436. St. Bernard, *On the Love of God*, transl. by M. C. and Coventry Patmore, London (Kegan Paul), pp. 151. Anonymous, *The Deluge: a Poem*, London (Stock), pp. 148. Anon., *The Student's Dream*, Chicago (Jansen & McLurg), pp. 97. G. Renard, *L'Homme est-il libre?* ("Bibliothèque Utile"), Paris (G. Baillière), pp. 186. P. Siciliani, *La Scienza nell' Educazione*, Sec. Ed. refusa, &c., Bologna (Zanichelli), pp. 376. C. K. J. v. Bunsen, *Allgemeines evangelisches Gesang- u. Gebetbuch*, ed. by A. Fischer, Gotha (Perthes), pp. 753. O. Schmitz-Dumont, *Die Einheit der Naturkräfte*, Berlin (Duncker), pp. 168. J. Duboc, *Der Optimismus als Weltanschauung u. seine religiös-ethische Bedeutung*, Bonn (Strauss), pp. 399.